Aliso Canyon 8-Lot Subdivision
Fire Protection Plan
APN No. 265-270-84

Prepared for:

County of San Diego

On behalf of Applicant:

Zephyr Partners, Real Estate Investments Development

Jim McMenamin, VP Forward Planning
700 Second Street
Encinitas, California 92024

Prepared by:

DUDEK
605 Third Street
Encinitas, California 92024
Contact: Michael Huff, Project Manager

AUGUST 2014

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TABLE OF CONTENTS

Section **Page No.**

EXECUTIVE SUMMARY **1**

1 INTRODUCTION **3**
1.1 Project Summary 3
1.1.1 Location 3
1.1.2 Project Description 4
1.1.3 Environmental Setting 4

2 DETERMINATION OF PROJECT EFFECTS **15**

3 ANTICIPATED FIRE BEHAVIOR **17**
3.1 Fire Behavior Modeling 17
3.1.1 Fuel Model Output Results 17
3.2 On-Site Fire Risk Assessment 18

4 ANALYSIS OF PROJECT EFFECTS **21**
4.1 Adequate Emergency Services 21
4.1.1 Emergency Response 21
4.2 Buildings, Infrastructure and Defensible Space 24
4.2.1 Fire Access 24
4.2.2 Water 26
4.2.3 Pre-Construction Requirements 26
4.3 Ignition Resistant Construction and Fire Protection Systems 26
4.3.1 Additional Mitigation Measures for the Aliso Canyon Project 30
4.4 Defensible Space and Vegetation Management 31
4.4.1 Fuel Modification 31

5 PROJECT SITE FUEL MODIFICATION ZONES AND SETBACKS **33**
5.1 Roadway Fuel Modification Zones 33
5.2 Special Fuel Management Issues 33
5.3 Specific Landscaping Requirements 34
5.4 Pre-Construction Requirements 35
5.5 Environmentally Sensitive Areas/Riparian Areas 35
5.6 Prohibited Plants 35
5.7 Vegetation Management Compliance Schedule 35
5.8 Zone 1 – Irrigated Zone (Structure to Property Boundary) 36

TABLE OF CONTENTS (CONTINUED)

Section **Page No.**

6 FUEL SEPARATION 37
6.1 Exterior Windows 38
6.2 Fire Structure Setbacks from Property lines 39
7 CUMULATIVE IMPACT ANALYSIS 41
8 CONCLUSION 43
9 REFERENCES 45
10 LIST OF PREPARERS 49

APPENDICES

A Photograph Log
B BehavePlus Fire Behavior Analysis
C Fire History Exhibit
D Prohibited Plant List
DD Rancho Santa Fe Fire Protection District Fire Service Availability Form
E Dudek Memorandum Dated March 3, 2014
F County of San Diego Letter Dated March 13, 2014

FIGURES

1 Project Location 5
2 Tentative Map 7
3 Fire Behave Analysis Map 19
4 Fire Hydrant Location Exhibit 27

TABLES

1 BehavePlus Fire Behavior Modeling Results 17
2 Rancho Santa Fe Fire Protection District Responding Stations Summary 23
3 Distance between Tree Canopies by Percent Slope 33

EXECUTIVE SUMMARY

The project site is approximately 31 acres and the project proposes an 8-lot subdivision with approximately 2-acre lot sizes. The project is located off Aliso Canyon Road and Pacifica Ranch Drive within the Rancho Santa Fe Fire Protection District. The project is an infill on an existing street. There is no extension proposed to the length of the exiting Aliso Canyon Road and no dead-end roads are proposed within the proposed project. The Aliso Canyon Road width ranges from approximately 24 to 31 feet wide and is paved with an all-weather road surface to El Camino Del Norte.

The proposed 8-lot project lies within an area statutorily designated a State Responsibility Area (SRA) "Very High Fire Hazard Severity Zone," by Rancho Santa Fe Fire Protection District (RSFFPD) and CAL FIRE. The site is surrounded by privately-owned, developed and undeveloped properties and to the north-west the Bridges an existing shelter-in-place residential community and to the north-east is Cielo another existing shelter-in-place residential community. The project is located on relatively flat ground with very gentle or no slopes and to the south is existing privately owned gated community.

The area, like all of San Diego County, is subject to seasonal weather conditions that can heighten the likelihood of fire ignition and spread; however, considering the site's mild terrain and sparse vegetation, would be expected to result in spotty, potentially fast moving and primarily low- to moderate-intensity wildfire.

The project site is located within the jurisdiction of the RSFFPD. The RSFFPD operates four fire stations that could respond to an incident on the site. Initial response to the site is provided from Fire Station 4 on Calle Ambiente and Fire Station 1 on El Fuego. Emergency Response travel time to the proposed project is 6.75 minutes from fire station number four and meets the general plan requirements for the maximum allowable travel time, which is 10 minutes. In addition, automatic/mutual aid agreements are in place with neighboring fire agencies to augment response, especially at the fringe areas of each jurisdiction.

The project will be constructed to the ignition resistant code requirements of the 2013 California Fire and Building (Chapter 7A) Codes (or the most recent code update at time of construction) as amended by RSFFPD. Construction shall include enhanced ignition resistant features, automatic interior sprinklers, appropriate fire flow and water capacity, roads, and supporting infrastructure, and fuel modification areas, as well as measures that exceed current Building/Fire code requirements.

Rancho Santa Fe Fire Protection District is one of the most progressive fire districts in San Diego County. The following is a summary of prevention services they provide. As an example,

the Fire Prevention Bureau consists of five member's full time and 2 members part time to ensure on going fire safety requirements are properly implemented in the Fire District:

a. Deputy Fire Marshal
b. Fire Prevention Specialist/Urban Forester
c. Fire Prevention Specialist
d. Staff Assistant
e. Annual Weed Abatement Inspector (part-time)
f. Intern position hired annually to inspect sheltered place communities for fire safety and code compliance (part-time)
g. Public Education Specialist

1 INTRODUCTION

This Fire Protection Plan (FPP) has been prepared for the proposed Aliso Canyon 7 lot Subdivision project in the unincorporated San Diego County, California. The purpose of the FPP is to assess the potential impacts resulting from wildland fire hazards and address the modification to the maximum allowable dead-end road length and identify the measures necessary to adequately mitigate those impacts and not lessen health, life and safety requirements for this project. As part of the assessment, this plan has considered the fire risk presented by the site including: property location and topography, geology (soils and slopes), combustible vegetation (fuel types), climatic conditions, fire history and the proposed land use and configuration. This FPP addresses water supply, primary access and secondary access, structural ignitability and ignition resistive building features, fire protection systems and equipment, impacts to existing emergency services, defensible space, and vegetation management. The plan identifies fuel modification/management zones and recommends the types and methods of treatment that will protect this project and its essential infrastructure. The FPP recommends measures that property owners will take to reduce the probability of structural ignition throughout the project.

This FPP is consistent and exceeds the Rancho Santa Fe Fire Protection District (RSFFPD) Ordinance No. 2011-01 and the 2011 San Diego County Consolidated Fire Code. The County's Consolidated Fire and Building Codes, as a package, have been certified by the State Board of Forestry as meeting the California Code of Regulations (CCR) Title 14 SRA Fire Safe Regulations requirements. Further, it is consistent with the CCR Titles 14 and 24, and State Fire and Building Codes (2013). The purpose of this plan is to generate and memorialize the fire safety requirements of the Fire Authority Having Jurisdiction (FAHJ), namely the RSFFPD. Requirements are based on site-specific characteristics and incorporate input from the fire district, project developer, project planners, engineers, and architects.

1.1 Project Summary

1.1.1 Location

The project site is approximately 31 acres and the project proposes an 8-Lot subdivision with approximately 2-acre lot sizes. The project is located off Aliso Canyon Road and Pacifica Ranch Drive within the Rancho Santa Fe Fire Protection District (Figure 1).

The project is located within core areas of the County's Multiple Species Conservation Plan. Figure 2 provides the project's site plan including roads and access points. The Assessor Parcel Number is 265-270-84. The entirety of the property lies within the state responsibility area (SRA), Very High Fire Hazard Severity Zone, as statutorily designated by the RSFFPD in

cooperation with CAL FIRE. Fire hazard designations are based on topography, vegetation, and weather, amongst other factors with more hazardous sites including steep terrain, unmaintained fuels/vegetation, and wildland urban interface (WUI) locations.

1.1.2 Project Description

The project is an infill on an existing street. The entire roadway from the proposed project to the nearest "compliance point" is currently and will continue to provide fuel modification in the form of developed property. There is no extension proposed to the length of the exiting Aliso Canyon Road and no dead-end roads are proposed within the proposed project. The Aliso Canyon Road width ranges from approximately 24 to 31 feet wide and is paved with an all-weather road surface to El Camino Del Norte. The existing road serves approximately 450 parcels. The proposed project would result in a minor increase in traffic of approximately .02% and slightly increase the density in the area by approximately 1.5%.

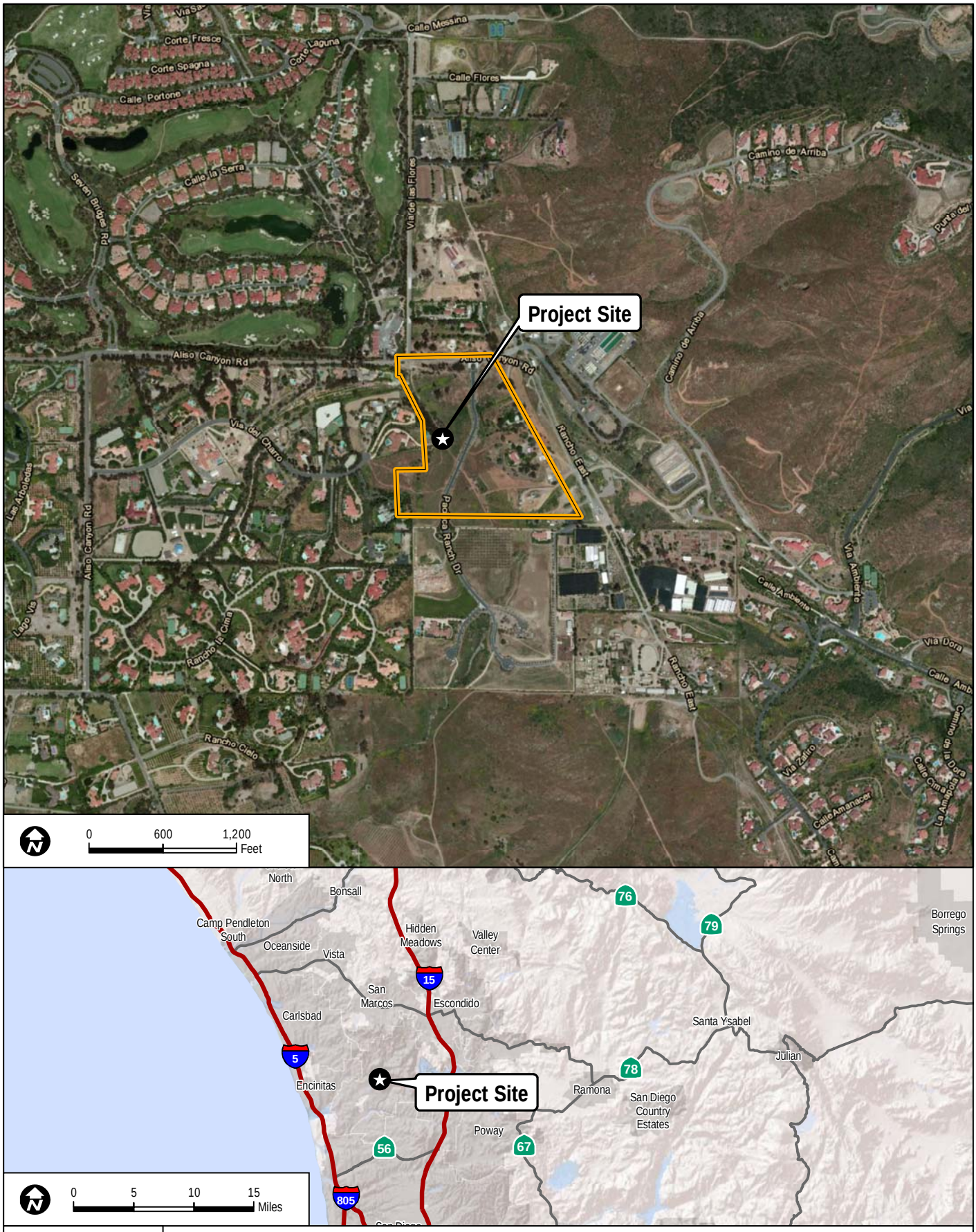
Appendix A provides photographs of the site in its current, undeveloped condition. As presented, the project site will consist of 7 single family home lots and along with improvements to access roads (paved and brought to within grade requirements), driveways, and utilities/infrastructure.

1.1.3 Environmental Setting

Dudek conducted three field assessments of the project site, including on-site and off-site adjacent areas, on December 26, 2013, and June 5 & 16, 2014, in order to document existing site conditions and determine potential actions for addressing the protection of proposed structures on the site.

Assessments of the area's topography, natural vegetation and fuel loading, fire history, and general susceptibility to wildfire formed the basis of the site risk assessment. Among the filed tasks that were completed are:

- Topographic features documentation
- Vegetation/fuel documentation and measurements
- Existing infrastructure evaluations
- Documentation of the existing condition
- Surrounding land use confirmations
- Necessary fire behavior modeling data collection
- Photograph documentation.



DUDEK

8117

FIGURE 1

Project Location

ALISO CANYON FPP

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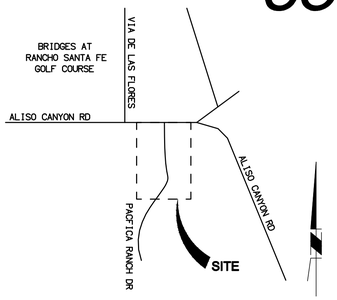
COUNTY OF SAN DIEGO TRACT TM 5589 - ALISO CANYON SUBDIVISON

TENTATIVE MAP



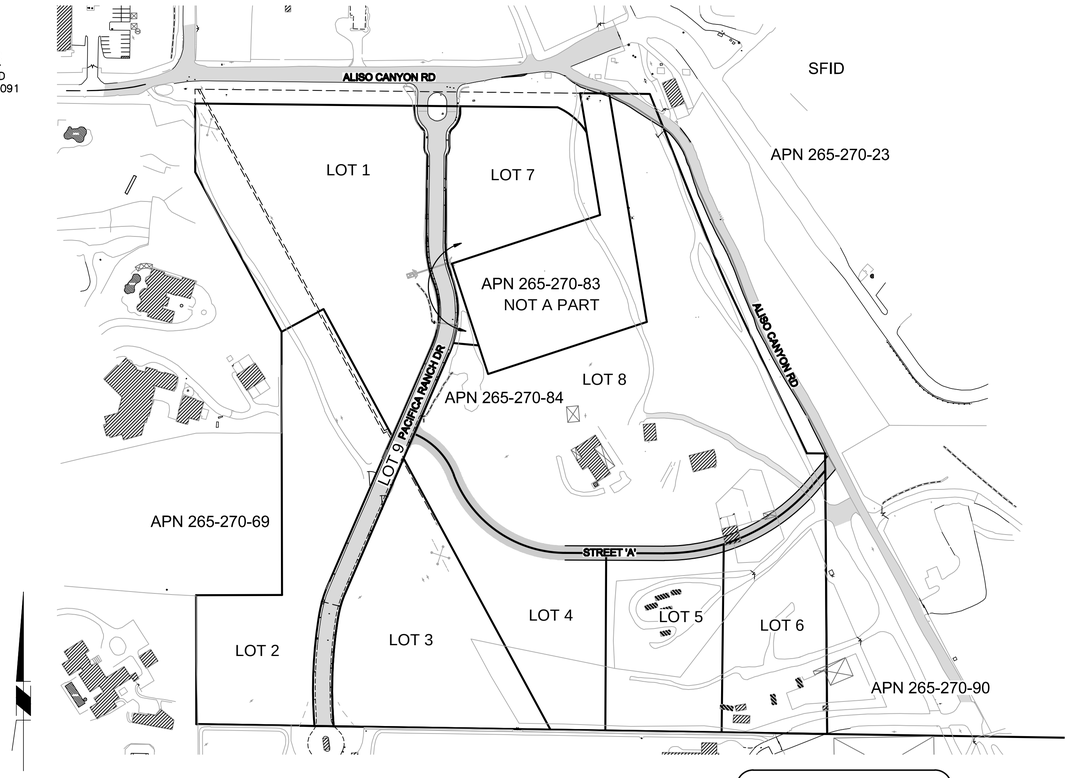
SAN DIEGO COUNTY THOMAS BROS.
PG 1148 SECTION G-6

VICINITY MAP

NTS

PROJECT ADDRESS

18531 ALISO CANYON ROAD
RANCHO SANTA FE, CA 92091



150 75 0 150 300 450
SCALE: 1"=150'

LEGAL DESCRIPTION

PARCEL "A" OF BOUNDARY ADJUSTMENT NO. B/C 96-0111, AS EVIDENCED BY DOCUMENT RECORDED JANUARY 16, 1997 AS INSTRUMENT NO. 97-20742 OF OFFICIAL RECORDS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THOSE PORTIONS OF PARCELS 1 AND 2 OF PARCEL MAP NO. 12526, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JANUARY 20, 1983 AS FILE/PAGE NO. 83-021056 OF OFFICIAL RECORDS.

ASSESSOR'S PARCEL NUMBER

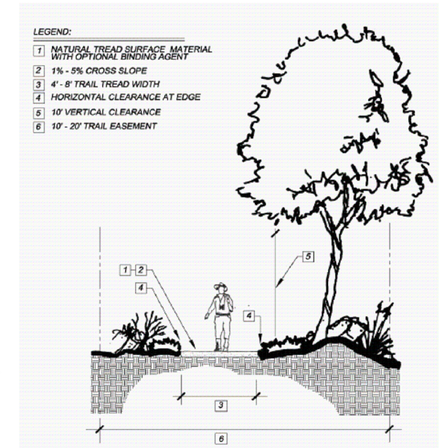
265-270-84

GENERAL NOTES

1. TAX RATE AREA: 71053
2. ACREAGE: 30.73 GROSS ACRES; 28.91 ACRES NET
3. TOTAL NUMBER OF LOTS: 9
4. MINIMUM LOT SIZE: 2.00 ACRE
5. MINIMUM PAD SIZE: 0.46 ACRE
6. ZONING: EXISTING - RR RURAL RESIDENTIAL (2 ACRE)
   PROPOSED - RR RURAL RESIDENTIAL (2 ACRE) REGIONAL CATEGORY: SEMI-RURAL
7. COMMUNITY PLAN: SAN DIEGUITO
8. GENERAL PLAN: EXISTING - SR2
9. SERVICES/UTILITIES
   SEWER DISTRICT: RANCHO SANTA FE COMMUNITY SERVICE DISTRICT
   WATER DISTRICT: OLIVENHAIN MUNICIPAL WATER DISTRICT
   FIRE DISTRICT: RANCHO SANTA FE
   FIRE PROTECTION DISTRICT
   SCHOOL DISTRICT: RANCHO SANTA FE
   STREET LIGHTING: COUNTY OF SAN DIEGO
   TELEPHONE: AT&T
   ELECTRIC: SAN DIEGO GAS AND ELECTRIC
   GAS: SAN DIEGO GAS AND ELECTRIC
10. NO REQUEST TO INITIATE PROCEEDINGS UNDER A SPECIAL ASSESSMENT ACT WILL BE MADE FOR THIS PROJECT.
11. FEES TO BE PAID IN LIEU OF PARK AND LAND DEDICATION.
12. PRIVATE ROAD 'A' IS PROPOSED.
13. TOPOGRAPHIC SOURCE: VERTICAL MAPPING RESOURCES, INC MAY 20, 2010.
14. ROAD VACATION TO REMOVE SA 680 PER FINAL MAP.
15. GRADING PROPOSED FOR LOTS 1-7. REFER TO SEPARATE PRELIMINARY GRADING PLAN.
16. GRADING QUANTITIES: 25,000 CY CUT = 25,000 CY FILL
17. AVERAGE SLOPE - 10.4%
18. STRUCTURES ON LOT 8 TO REMAIN.
19. STRUCTURES ON LOT 5 AND LOT 6 TO BE REMOVED.
20. DEVELOPER WILL COMPLY WITH THE STREET LIGHT REQUIREMENTS SPECIFIED IN THE COUNTY STANDARDS.

TRAIL NOTES

1. FOR TRAIL TYPICAL SECTION, SEE DETAIL HEREON.
2. TYPICAL TRAIL EASEMENT WIDTH IS 20-FEET. EASEMENT WIDTH IS REDUCED TO 10-FEET WHERE TOPOGRAPHY IS FLAT (LESS THAN 10%).
3. WHERE TRAIL SLOPE EXCEEDS 5%, A BINDING AGENT SHALL BE APPLIED.
4. TRAIL SHALL BE FREE AND CLEAR OF LANDSCAPING OR ABOVE GROUND UTILITIES.
5. PRIOR TO CONSTRUCTION, TRAIL LOCATION WITHIN SDG&E EASEMENT REQUIRES SDG&E APPROVAL.
6. THE TRAILS SHALL BE CONSTRUCTED PURSUANT TO COUNTY'S TRAIL MASTER PLAN.



TRAIL TYPICAL SECTION

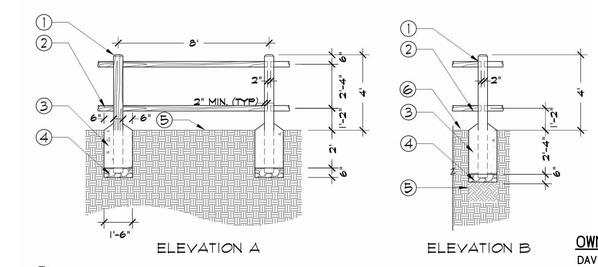
N.T.S.

LEGEND

ITEM	SYMBOL
PROPOSED LOT LINE	PL
RIGHT OF WAY LINE	R/W
EXISTING CONTOUR	(450)
PROPOSED CONTOUR	450
GRADING DAYLIGHT LINE	
EXISTING STORM DRAIN	SD
EXISTING ASPHALT PAVING	
PROPOSED ASPHALT PAVING	
SEWER FORCE MAIN	FM
SEWER SERVICE (WITH PUMP)	SP
SEWER SERVICE (GRAVITY)	S
DOMESTIC WATER MAIN	W
DOMESTIC WATER SERVICE	W
EXISTING POWER POLE	
PROPOSED HYDRANT	
EXISTING HYDRANT	
BIOLOGICAL OPEN SPACE	
PROPOSED LODGE POLE FENCE PER DETAIL HEREON	
PROPOSED OPEN SPACE AREA SIGNAGE PER DETAIL HEREON	

SHEET INDEX

1) COVER SHEET, TYPICAL SECTIONS, AND NOTES
2) TENTATIVE MAP



NOTES:
ALL RAILS TO BE SECURED TO POST WITH 20d HOT DIPPED GALV. NAILS

LODGE POLE FENCE

N.T.S.

OWNER

DAVID LAUGHTER
P.O. BOX 7
RANCHO SANTA FE, CA 92067

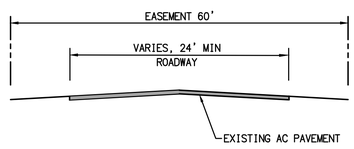
SUBDIVIDER

ZEPHYR PARTNERS- RE LLC
700 2ND STREET
ENCINITAS, CA 92024
(858) 461-5109
CONTACT: JIM McMENAMIN

SENSITIVE ENVIRONMENTAL RESOURCE

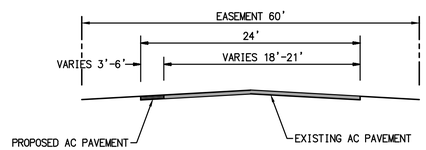
Disturbance beyond this post is restricted by easement

Information:
Contact County of San Diego
Department Planning and Landuse
Ref: 09-05-001



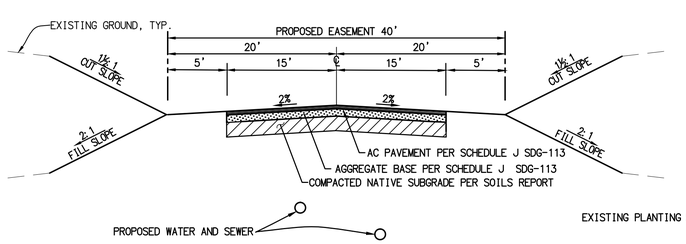
EXISTING ALISO CANYON ROAD-NORTH

NTS



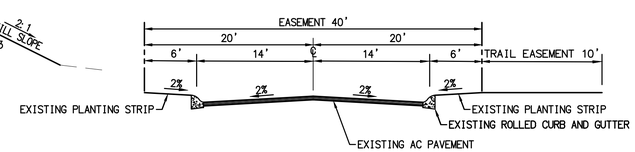
EXISTING ALISO CANYON ROAD- EAST

NTS



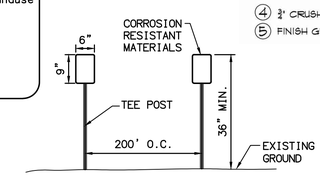
PROPOSED STREET 'A' - PRIVATE RESIDENTIAL

NTS



EXISTING PACIFICA RANCH DRIVE

NTS



TYPICAL
OPEN SPACE SIGNAGE

NTS

ZONE: EXISTING/PROPOSED

ZONE		
USE REGULATIONS		RR
NEIGHBORHOOD REGULATIONS/ANIMAL		V
DEVELOPMENT REGULATIONS	DENSITY	--
	LOT SIZE	2AC
	BUILDING TYPE	C
	MAXIMUM FLOOR AREA	--
	FLOOR AREA RATIO	--
	HEIGHT	G
	LOT COVERAGE	--
	SETBACK	B
	OPEN SPACE	--
SPECIAL AREA REGULATIONS		--

LAND USE SUMMARY TABLE

8 NEW RESIDENTIAL LOTS (LOTS 1-8)	28.9 ACRES
PRIVATE STREET (PACIFICA RANCH DR)	0.8 ACRES
TOTAL	**30.7 ACRES**

BY: DATE:

PREPARED BY:

RBF CONSULTING
5050 AVENIDA ENCINAS, SUITE 260
CARLSBAD, CA 92008
(760) 476-9193

ENGINEER OF WORK

Timothy Thiele 06/16/14
TIMOTHY M. THIELE, R.C.E. C60283 DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY M. THIELE No. C60283 CIVIL STATE OF CALIFORNIA

ALISO CANYON SUBDIVISION
COUNTY OF SAN DIEGO, CA
TM 5589
SHEET 1 OF 2
AUGUST 2014

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760.476.9193 • FAX 760.476.9198 • www.RBF.com

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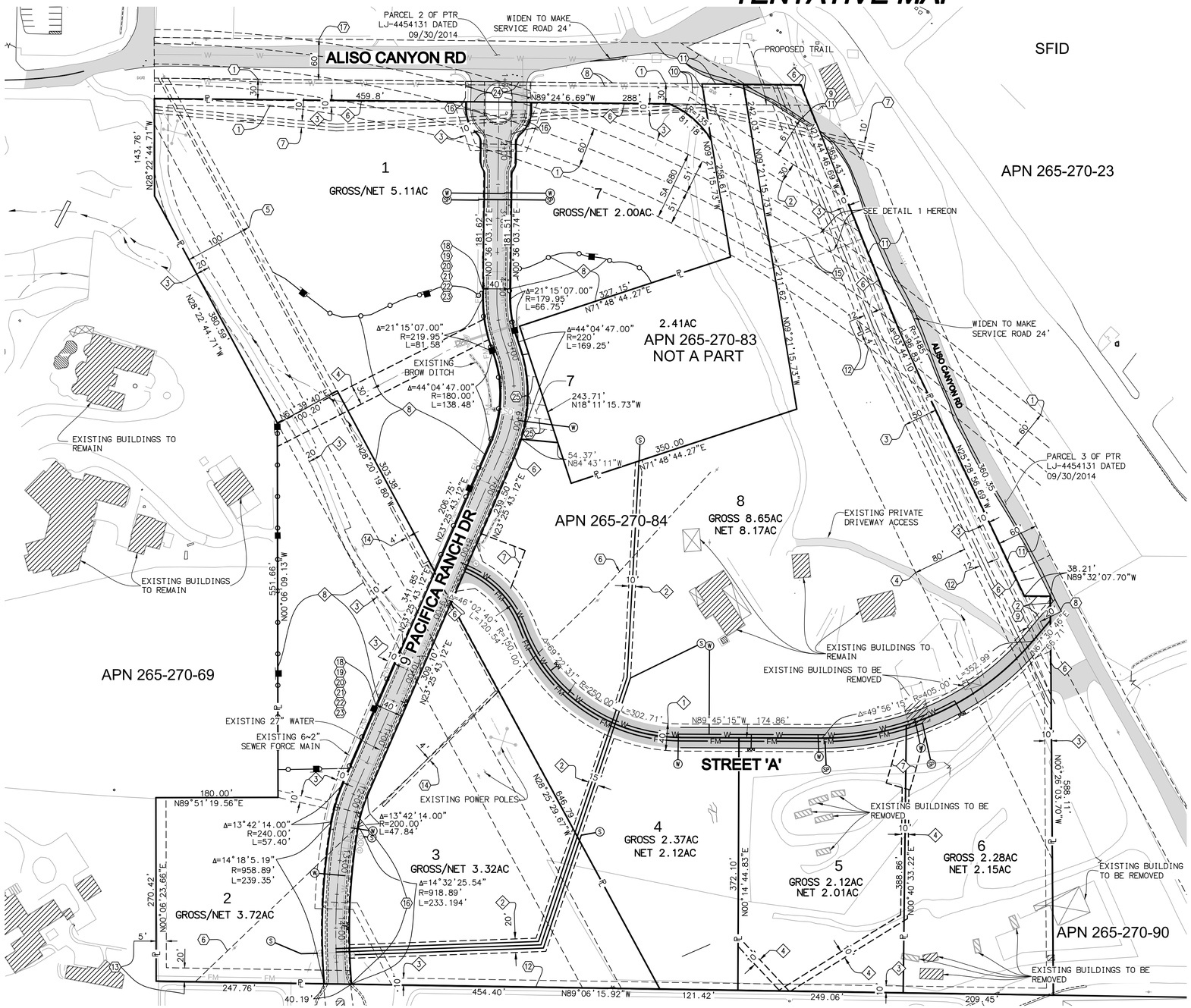
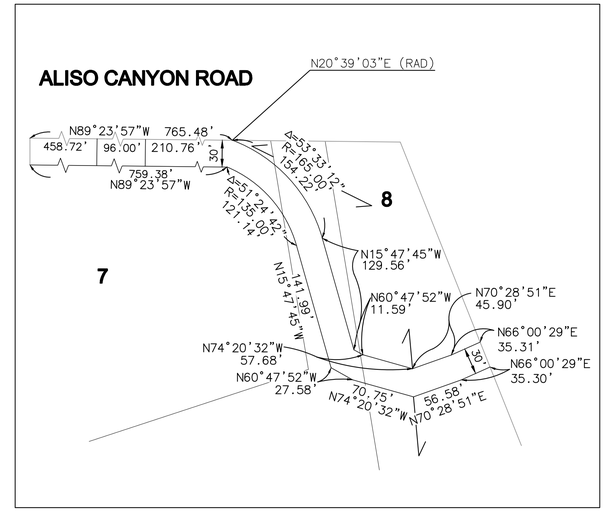
COUNTY OF SAN DIEGO TRACT TM 5589 - ALISO CANYON SUBDIVISION

TENTATIVE MAP





1 EASEMENT 15 DETAIL
SCALE: 1"=80'

PROPOSED EASEMENTS

	DESCRIPTION
1	40' PRIVATE ROAD AND UTILITY EASEMENT FOR STREET 'A'
2	PRIVATE SEWER EASEMENT
3	PUBLIC TRAIL EASEMENT
4	10' PRIVATE DRAINAGE EASEMENT
5	1' RESTRICTED ACCESS EASEMENT
6	PROPOSED BMP MAINTENANCE ACCESS EASEMENT
7	BIOLOGICAL OPEN SPACE EASEMENT

EXISTING EASEMENTS

	DESCRIPTION	FINAL STATUS
1	REJECTED PUBLIC ROAD EASEMENT PER PARCEL MAP 12526	TO BE VACATED
2	RANCHO CIELO SANITATION DISTRICT EASEMENT #87-619965 - 11/04/1987	TO REMAIN
3	SAN DIEGO COUNTY WATER AUTHORITY EASEMENT PER #60-25441 - 02/08/1960	TO REMAIN
4	SAN DIEGO COUNTY WATER AUTHORITY EASEMENT PER #27717 - 02/16/1971	TO REMAIN
5	SDGE EASEMENT PER BK1023 PG 413 - 05/28/1940	TO REMAIN
6	SDGE EASEMENT PER BK3363 PG 128 - 10/25/1949	TO REMAIN
7	SDGE EASEMENT PER #1997-0094863 - 03/04/1997	TO REMAIN
8	OLIVENHAIN WATER DISTRICT EASEMENT PER DOC #75-030514 - 02/10/1975	TO REMAIN
9	OLIVENHAIN WATER DISTRICT EASEMENT PER DOC #85-166796 - 05/13/1985	TO REMAIN
10	OLIVENHAIN WATER DISTRICT EASEMENT PER DOC #85-192385 - 05/31/1985	TO REMAIN
11	PRIVATE ROAD AND UTILITY EASEMENT PER PARCEL 3 OF PTR LJ-4454131- 09/30/14	TO REMAIN
12	SDG&E EASEMENT PER DOC #198581 - 11/01/1965	TO REMAIN
13	RANCHO SANTA FE COMMUNITY SERVICES DISTRICT EASEMENT PER #2004-0509517 - 06/02/2004	TO REMAIN
14	PAC. TEL AND TEL EASEMENT PER DOC # 67-54438 - 04/19/1967	TO REMAIN
15	ROAD EASEMENT PER DOC #2011-0397926 08/04/2011	TO REMAIN
16	RANCO SANTA FE COMMUNITY SERVICES DISTRICT EASEMENT FOR SEWERLINE PER DOC #2005-0156193 02/25/2005	TO REMAIN
17	PRIVATE ROAD EASEMENT PER PARCEL 2 OF PTR LJ-4454131- 09/30/14	TO REMAIN
18	ROAD AND UTILITY EASEMENT PER DOC # 1998-0585478 - 09/15/1988, MOD #2004-0509518 - 06/02/2004	TO REMAIN
19	SEWER EASEMENT PER DOC #2004-0509519 - 06/02/2004	TO REMAIN
20	ROAD MAINTENANCE EASEMENT PER DOC #2004-0509520 - 05/02/2004	TO REMAIN
21	LANDSCAPING EASEMENT PER DOC #2004-0509521 - 06/02/2004	TO REMAIN
22	PUBLIC UTILITIES EASEMENT PER DOC #2004-1185194 - 12/16/2004	TO REMAIN
23	WATERLINE EASEMENT PER DOC #2005-0156194 - 02/25/2005	TO REMAIN
24	EASEMENT FOR INGRESS, EGRESS, AND PUBLIC UTILITIES	TO REMAIN
25	ROAD AND UTILITY EASEMENT PER DOC # 2012-0764227	TO REMAIN

LEGAL DESCRIPTION

THOSE PORTIONS OF PARCELS 1 AND 2 OF PARCEL MAP NO. 12526, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JANUARY 20, 1983 AS FILE/PAGE NO. 83-021056 OF OFFICIAL RECORDS.

80 40 0 80 160 240
SCALE: 1"=80'

ENGINEER OF WORK
06/16/14
TIMOTHY M. THIELE, R.C.E. C60283 DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY M. THIELE No. C60283 CIVIL STATE OF CALIFORNIA

ALISO CANYON SUBDIVISON
COUNTY OF SAN DIEGO, CA
TM 5589
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AUGUST 2014

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1.1.3.1 Topography

The Aliso Canyon project site consists of flat to gently sloping terrain that trends from the north to the south and from east to west. A large majority of the site is disturbed by ongoing nursery operations and residences in the southeast and central portions of the site. Much of the site is traversable on dirt roads or accessible from Pacific Ranch Drive, a paved all-weather road that bisects the property from north to south. Elevations on site range from roughly 451feet above mean seal level (AMSL) in the northeast corner of the property to just over 380 feet AMSL in the western portion of the project.

1.1.3.2 Fuels

Vegetative fuels surrounding the site are characteristic of the area and are primarily Diegan coastal sage scrub, although smaller pockets of non-native annual grasslands (flashy fuels) are present. Vegetation in this area is in varying stages of fire recovery (2007 Witch Fire). As such, fuel loads will increase over time and typically form a continuous cover of 3-4 feet tall shrubs on dry, rocky, slopes with little soil. Ornamental vegetation and urban/developed land cover types are also present in the northwest, west, and south of the site. The area proposed for development and within the project grading limits will be converted to roads, structures, and landscape vegetation following project completion. Vegetative fuels within proposed fuel modification zones consist primarily of grasslands, although these fuels will be modified as a result of development, altering their current structure and species composition.

Vegetation communities of concern are those that are more likely to facilitate fire spread into the proposed development. Two, off-site vegetation communities were identified as potentially facilitating fire spread toward project residences. They are as follows:

Diegan Coastal Sage Scrub/Non-native Grasses (Off Site)

Diegan coastal sage scrub is one of two major shrub types in southern California, occupying xeric sites characterized by shallow soils. Coastal sage scrub is dominated by drought-deciduous shrub species with relatively shallow root systems and open canopies. This vegetation community often contains a substantial herbaceous component and leaf litter layer. Dominant species within Diegan coastal sage scrub on site include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and black sage (*Salivia mellifera*) with small pockets of annual grass species. This habitat occurs on vacant hillsides to the north and east of the Project Site.

Ornamental Vegetation/Non-native Grasslands (Off Site)

Southern California's climate is capable of supporting many types of ornamental landscape plant material (evergreen and deciduous). There is diversity in terms of structure, height, and density of these plants. The ornamental landscape exists because of humans, and in most cases it is dependent upon humans to be irrigated and maintained. An ornamental landscape will commonly blend into native habitat. This vegetation type is usually planned and regularly maintained (pruned, watered, and removal of dead plants). However, not all ornamental landscapes are considered fire safe. For example, a landscape that is poorly maintained, or is planted too densely may be compromised, and therefore, become more flammable. This vegetation type occurs as front or back yards around the semi-rural homes in the north, west, and south of the project site. Additionally, some vacant lots consist of mowed, annual grasses.

1.1.3.3 Fuel Loads

The vegetation described above translates to fuel models used for fire behavior modeling, discussed in Chapter 3 of this FPP. Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (leaf size, branching patterns), and overall fuel loading. For example, the native shrub species that compose the sage scrub plant communities on site are considered to exhibit higher potential hazard based on such criteria.

The importance of vegetative cover on fire suppression efforts is its role in affecting fire behavior. For example, while fires burning in grasslands may exhibit lower flame lengths than those burning in sage scrub fuels, fire spread rates in grasslands are often much more rapid than those in other vegetation types. Fuel loading in grassland is estimated to be 0.74 ton/acre, while that in coastal sage scrub is estimated at 3.0 tons/acre.

1.1.3.4 Fire History

Fire history is an important component of a site-specific FPP. Fire history information can provide an understanding of fire frequency, fire type, most vulnerable project areas, and significant ignition sources, amongst others. Appendix C illustrates fire history for the Aliso Canyon project vicinity. As presented, there have been numerous fires recorded by various fire agencies in the direct vicinity of the project site. One recorded fire has burned on the Project Site, occurring in 1943. The average fire return interval for fires burning within 5 miles of the project site is 6.8 years. Recorded wildfires within 5 miles range from 29 acres to 162,070 (Witch Fire) acres, however, only one fire was larger than 9,400 acres and the average fire size is 2,637 acres (not including the Witch Fire or fires smaller than 10 acres). The 2007 Witch Fire

(over 162,000 acres) is the most recent fire, which occurred approximately 0.1 mile south and east of the Project Site. As suggested by the data, a significant fire history exists in the vicinity of the project site but most wildfires are contained by initial or extended attack. Consistent with results throughout large portions of Southern California, Santa Ana wind driven fires present the highest risk of non-containment by initial or extended attack and the occurrence of a major incident. Fire history data was obtained from CAL FIRE's Fire and Resource Assessment Program (FRAP 2014) database. Based on fire history, wildfire risk for the project site is associated primarily with a Santa Ana wind-driven wildfire burning or spotting onto the site from the east or north, although a fire approaching from the west during more typical on-shore weather patterns is possible.

1.1.3.5 Climate

North San Diego and the project area are influenced by the Pacific Ocean and are frequently under the influence of a seasonal, migratory subtropical high pressure cell known as the "Pacific High." Wet winters and dry summers with mild seasonal changes characterize the Southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds. The average high temperature for the San Diego area is approximately 70°F, with average highs in the summer and early fall months (July–October) reaching 77°F. The average precipitation for the area is approximately 11 inches per year, with the majority of rainfall concentrated in the months of December (2.6 inches), January (2.0 inches), February (2.2 inches), and March (1.5 inches), while smaller amounts of rain are experienced during the other months of the year.

The prevailing wind pattern is from the west (on-shore), but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are from the west–southwest (sea) and at night winds are from the northeast (land), averaging 2 miles per hour (mph). During the summer season, the diurnal winds may average slightly higher (approximately 16 mph) than the winds during the winter season due to greater pressure gradient forces. Surface winds can also be influenced locally by topography and slope variations. The highest wind velocities are associated with downslope, canyon, and Santa Ana winds.

Typically the highest fire danger is produced by the high-pressure systems that occur in the Great Basin, which result in the Santa Ana winds of Southern California. Sustained wind speeds recorded during recent major fires in San Diego County exceeded 30 mph and may exceed 50 mph during extreme conditions. The Santa Ana wind conditions are a reversal of the prevailing southwesterly winds that usually occur on a region-wide basis during late summer and early fall. Santa Ana winds are warm winds that flow from the higher desert elevations in the north through the mountain passes and canyons. As they converge through the canyons, their velocities

increase. Consequently, peak velocities are highest at the mouths of canyons and dissipate as they spread across valley floors. Santa Ana winds generally coincide with the regional drought period and the period of highest fire danger. The Rancho Cielo Estates site is affected by strong winds, such as Santa Anas. Winds funneled through mountains and onto the valley floor dissipate and produce lower average wind conditions.

2 DETERMINATION OF PROJECT EFFECTS

FPPs provide an evaluation of the adverse environmental effects a proposed project may have from wildland fire. The FPP must provide mitigation for identified impacts to ensure that development projects do not unnecessarily expose people or structures to a significant loss, injury or death involving wildland fires. Significance is determined by answering the following guidelines:

Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where Wildland are adjacent to urbanized areas or where residences are intermixed with Wildland?

The wildland fire risk in the vicinity of the Project site has been analyzed and it has been determined that wildfires may occur in wildland areas to the north, east, south, and southwest of the project site, but would not be significantly increased in frequency, duration, or size with the construction of the Project. In fact, the existing site includes numerous potential fire issues including, annual grasses and native vegetation. The Project would include conversion of fuels to maintained development with designated Rancho Santa Fe Fire Protection District review of all landscaping and fuel modification areas and highly ignition resistant structures. As such, the site will be largely converted from readily ignited fuels to ignition resistant landscape and structures.

The types of potential ignition sources that currently exist in the area include overhead power lines, vehicle, roadway, and off-site residential neighborhoods. The project would introduce potential ignition sources, but would also include conversion of ignitable fuels to lower flammability landscape and include better access throughout the site, managed and maintained landscapes, more eyes and ears on the ground, and generally a reduction in the receptiveness of the areas landscape to ignition. Fires from off-site would not have continuous fuels across this site and would therefore be expected to burn around and/or over the site via spotting. However, these fuels can ignite and burn during extreme conditions. Burning vegetation embers may land on Project structures, but are not likely to result in ignition based on ember decay rates and the types of non-combustible and ignition resistant materials and venting that will be used on site.

The Project would comply and exceed the applicable fire and building codes and would include a layered fire protection system designed to current codes and inclusive of site-specific measures that will result in a Project that is less susceptible to wildfire than surrounding landscapes and that would facilitate fire fighter and medical aid response. With the modeling results, which closely mimic reported 2007 Witch Creek Fire behavior, combined with the ignition resistance construction required, and offered above and beyond requirements, the risk of wildfire damage to the project site's structures is considered low.

Would the project result in inadequate emergency access?

No, the entire roadway from the proposed project to the nearest "compliance point" is currently and will continue to provide fuel modification in the form of developed landscape. There is no extension proposed to the length of the existing Aliso Canyon Road and no dead-end roads are proposed within the proposed project. The Aliso Canyon Road width ranges from approximately 24 to 31 feet wide and is paved with an all-weather road surface to El Camino Del Norte. The existing road serves approximately 450 parcels. The proposed project would result in a minor increase in traffic of approximately .02% and slightly increase the density in the area by approximately 1.5%. Therefore, emergency access is considered adequate for this project.

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance service ratios, response times or other performance objectives for fire protection?

The Project is projected to add an estimated fewer than 3 calls per year to the RSFFPD's existing call load. The primary response (first in) would be provided by Station 4, which ran 343 calls in 2012. The addition of 3 calls/year (.25 call per month,) to a fire station that currently responds to approximately 29 calls per month (7 calls per week, 1 call per day) is considered insignificant and will not require the construction of additional Fire Station facilities based on that increase alone. For perspective, urban fire stations that respond to five calls per day are considered average and 10 calls per day would be considered a busy station. A portion of the project's parcel tax revenue will be allocated to fire protection, which can be used to maintain current levels of protection without impacting existing citizens.

Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The project will be served by Olivenhain Municipal Water District OMWD and sufficient water supplies will be available to serve the project from existing entitlements and resources. RSFFPD and the Water District require new development to meet a minimum 2500 gpm fire flow. The pressures in the development will remain above 20 psi when meeting the fire requirements for the OMWD. Current Fire Flow - taken on January 6, 2009, at Via De Las Flores, 27-inch main, had a static pressure of 179 psi and a residual pressure of 177 psi, with a 2.5-inch opening residual pressure of 140 psi, flowing 1,851 gallons per minute (gpm), done by OMWD, exceeds code requirements of 2,500 gpm for new subdivisions in hazardous fire areas. Fire flow with 20 psi equals 19,660 gpm maximum fire flow.

The measures described in the responses to these significance questions are provided more detail in the following sections.

3 ANTICIPATED FIRE BEHAVIOR

3.1 Fire Behavior Modeling

Following field data collection efforts and available data analysis, fire behavior modeling was conducted to document the type and intensity of fire that would be expected on this site given characteristic site features such as topography, vegetation, and weather. Results are provided below and a more detailed presentation of the modeling inputs and results is provided in Appendix B.

3.1.1 Fuel Model Output Results

The results from the BehavePlus fire behavior model are presented in Table 1 and Figure 3. As presented, wildfire behavior adjacent to the Aliso Canyon site is expected to be primarily of moderate intensity throughout the sage scrub-grasslands dominated fuels to the east. Fire intensity is expected to be lower in the ornamental landscapes to the west and northwest

Table 1
BehavePlus Fire Behavior Modeling Results

Model Run	Fuel Model(s)	Flame Length (feet)	Fireline Intensity (Btu/ft/s)	Surface Rate of Spread (mph)
1	1 & SCAL 18	12.7 to 44.3	1,415 to 21,485	3.4 to 8.3
2	1 & SCAL 18	12.7 to 44.3	1,415 to 21,593	3.4 to 8.3
3	1 & 10	9.4 to 10.0	736 to 844	0.3 to 5.6
4	1 & 10	9.4 to 10.0	736 to 844	0.3 to 5.6

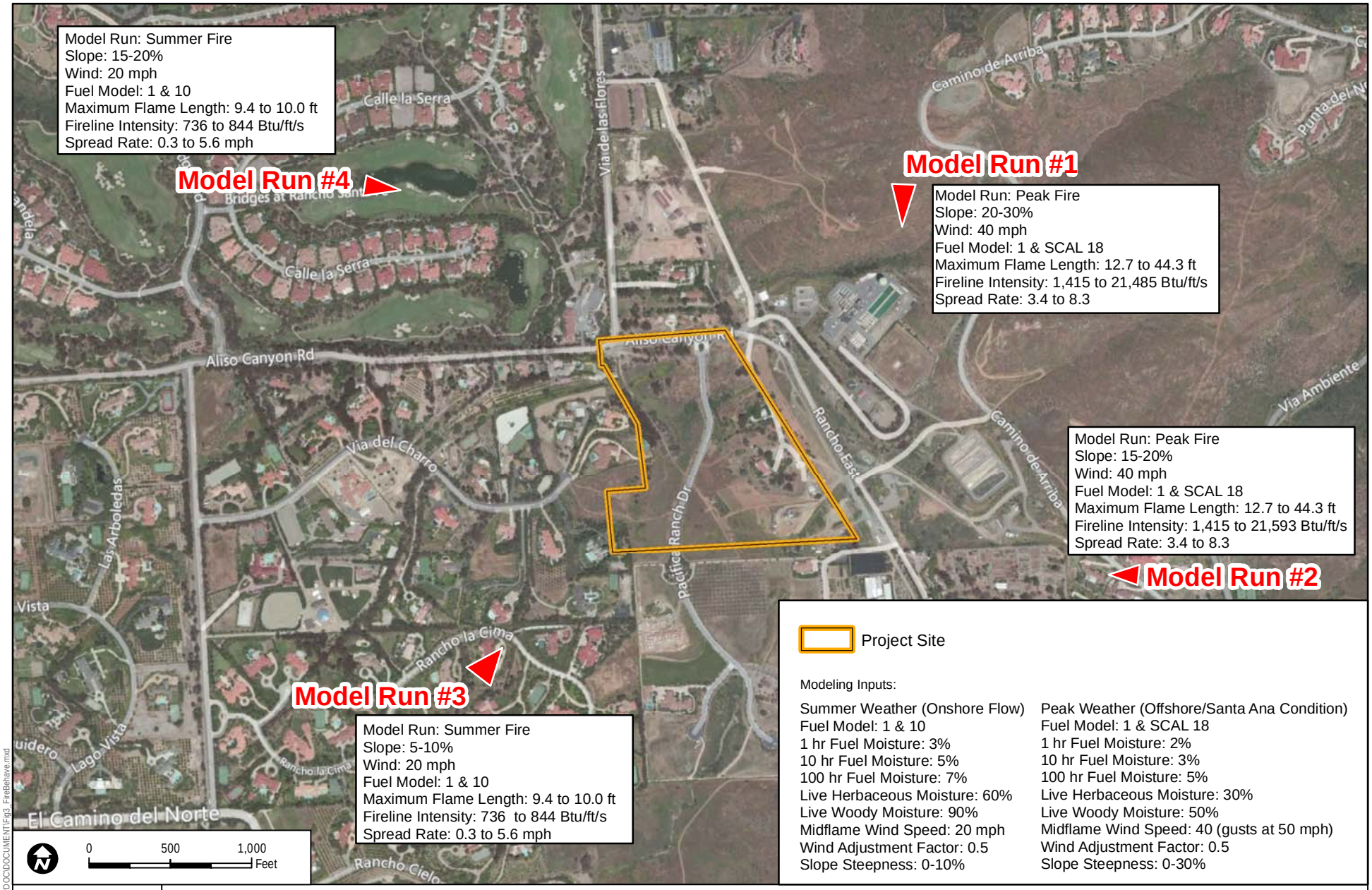
The majority of the adjacent open space areas were modeled as a Fuel Model SCAL18. The small patches of grasslands interspersed throughout the sage brush habitat was modeled as a Fuel Model 1. It should also be noted that the majority of hillsides adjacent to the Aliso Canyon site slope upward, away from the development, which affects fire spread rates and results in a slower, less aggressive fire that “backs” down the hillside, under typical conditions. Fire behavior modeling outputs presented in this FPP were calculated for direct winds pushing fire movement downhill for Model Runs 1 and 2 and uphill for Model Runs 3 and 4. Fires in sage scrub fuels are expected to move slower than those in grasslands, but produce significantly higher intensities and flame lengths. Flame lengths in non-managed sage scrub fuels are expected to reach up to nearly 44 feet under extreme weather conditions, with spread rates reaching 3.4 mph. Grassland fires are expected to be lower intensity fires that would be expected to move rapidly but have a short duration, produce low to moderate heat, and result in up to

13-foot flame lengths under extreme weather conditions. The results presented in Table 1 depict values based on inputs to the BehavePlus software and are not intended to capture changing fire behavior as it moves across a landscape. Changes in slope, weather, or pockets of different fuel types are not accounted for in this analysis. For planning purposes, the averaged worst-case fire behavior is the most useful information for conservative fuel modification design. Model results should be used as a basis for planning only, as actual fire behavior for a given location will be affected by many factors, including unique weather patterns, small-scale topographic variations, or changing vegetation patterns.

Based on the results of fire behavior modeling, a typical fire in the Aliso Canyon vicinity will be a grass/sage scrub-fueled fire that moves quickly, burning with moderate intensity. The fire is anticipated to be a wind-driven fire from the east or north during the fall. Flame lengths in the grasses will approach 13 feet with spread rates reaching approximately 8.3 mph due to flashy fuels, wind, and low fuel moisture. Flame lengths in the sage scrub fuels will reach 44 feet with spread rates reaching approximately 3.4 mph. A typical cause may be related to structure fires from older homes to the west or roadways (tossed cigarette, vehicle accidents, electrical line arching, or car fire).

3.2 On-Site Fire Risk Assessment

Given the history of wildfire on site, as well as the 2007 Witch Fire which burned within 0.1 mile to the east and north of the Aliso Canyon site, combined with the vegetation, climate, nearby ignition sources, and anticipated fire behavior, the project may be vulnerable to wildfire ignition and spread. Wildfires may start on, burn into, or spot into the site. Under favorable weather conditions, fire can move rapidly through the non-native grasses and scrub approaching from the east into the Aliso Canyon community.



DUDEK

8117

SOURCE: Bing 2014

FIGURE 3

Fire Behave Analysis Map

ALISO CANYON FPP

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4 ANALYSIS OF PROJECT EFFECTS

4.1 Adequate Emergency Services

4.1.1 Emergency Response

The project site is located within Rancho Santa Fe Fire Protection District (RSFFPD) and SRA and the RSFFPD has provided a Fire Service Availability Letter (Appendix DD). RSFFPD Fire Station 4, staffed 24/7 with career firefighters, and would provide initial response. The district has an ISO rating of four (Aliso Canyon Project has an ISO rating of 4) and nine in the outlying areas and provides structural and Wildland fire protection. Station 4 is located northeast of Del Dios Highway at 18040 Calle Ambiente, approximately travel time of 6.75 minutes to the furthest point on the site. The station is staffed by three captains, three engineers, three firefighters and paramedics, for a total staffing of 9 positions (covering 3 shifts). It is equipped with one Type 1 engine, one Type 3 brush engine, OES Unit, and an advance life support ambulance. Emergency ambulance service for County Service Area 17 (CSA 17) is outsourced to a private vendor. Station 4 is assigned a Paramedic ambulance staffed with one Emergency Medical Technician (EMT) and one Paramedic per 24-hour shift. RSFFPD Station 4 engine can respond within 6.0 minutes travel time, which is within RSFFPD's response time standard of 10 minutes based upon the General Plan of the County of San Diego.

Within the area's emergency services system, fire and emergency medical services are provided by the Fire Protection District (Rancho Santa Fe Fire Protection District) or Fire Departments (Escondido Fire Department, San Diego City Fire Department, Encinitas Fire Department, Solana Beach Fire Department, and Del Mar Fire Department), County Service Areas (CSA 17), and CAL FIRE. Generally, each agency is responsible for structural fire protection and wildland fire protection within their area of responsibility. However, mutual aid agreements enable non-lead fire agencies to respond to fire emergencies outside their district boundaries. In the project area, fire agencies cooperate on a statewide master mutual aid agreement for wildland fires and there are mutual aid agreements in place with neighboring fire agencies (north zone agencies and San Diego City) and typically include interdependencies that exist among the region's fire protection agencies for structural and medical responses, but are primarily associated with the peripheral "edges" of each agency's boundary. These agreements are voluntary, as no local governmental agency can exert authority over another.

With four stations and a service area of approximately 38 square miles and roughly 52 full time staff, the RSFFPD is well equipped for the type of responses it routinely responds to within its jurisdiction and which would be generated by the Aliso Canyon Project.

4.1.1.1 Emergency Service Level

Using San Diego County fire agencies' calculated 82 annual calls per 1,000 population, the project's estimated 22 residents (calculated based on 3.12 persons per dwelling; SANDAG 2013), would generate up to 3 calls per year (roughly .25 call per month), most of which would be expected to be medical-related calls, consistent with typical emergency call statistics. These estimates are likely overly conservative due to the per capita call factors, which are based on an average of all demographics and sociological populations, including dense, urban areas which, on average, result in higher call volumes. A development like Aliso Canyon would typically include a demographic that results in fewer calls, per capita, resulting in an overly conservative estimate.

Service level requirements are not expected to be significantly impacted with the increase of less than 3 calls per year for a station (RSFFPD Station 4) that currently responds to roughly 1 call per day (343 calls for CY 2012, 29 calls per month, 7 calls per week) in its primary service area. For reference, a station that responds to 5 calls per day in an urban setting is considered average and 10 calls per day is considered busy. Therefore, the project is not expected to cause a decline in the emergency response times. RSFFPD responds to roughly 2,700 calls per year from its four stations, indicating that most of the Fire District's fire stations, presumably those in the more dense, urban areas, are currently responding to higher call volumes (799 per year or more for station 2) than Station 4. Additional response, rounding out the effective firefighting force (the manpower needed to effectively fight a structure fire and/or respond to serious medical emergency) would be provided by Stations 1, 2 and/or 3.

The Rancho Santa Fe Fire Protection District response time standard for all priority Level One or Emergency type calls is 7 minutes, a total of 90% of the time for the first arriving unit. In 2012, the average response time from Station 4 was 6 minutes and 39 seconds for all calls. Response to the project from nearby fire station 4 will be well below the Fire District's response time standard for first arriving. Response from Station 4 is calculated at roughly 6.75 minutes to most of the project site. Therefore, the project complies with the Fire District's response time standard. Further, the requirements described in this FPP are intended to aid firefighting personnel and minimize the demand placed on the existing emergency service system.

Table 2 presents a summary of the location, equipment, staffing levels, maximum travel distance, and estimated travel time for the RSFFPD stations responding to the project. Travel distances are derived from SANGIS Geographic Information System (GIS) road data while travel times are calculated using response speeds of 35 mph, consistent with nationally recognized National Fire Protection Association (NFPA) 1710 and Insurance Services Office (ISO) Public Protection Classification Program's Response Time Standard and do not include turnout time.

Table 2
Rancho Santa Fe Fire Protection District Responding Stations Summary

Station	Location	Equipment	Staffing*	Maximum Travel Distance**	Travel Time***
Station 1	16936 El Fuego Rancho Santa Fe, California 92067	Paramedic, Type 1 Engine Type 3 Brush Engine Water Tender Medic Unit BC Command Vehicle	12 firefighters 3 B/Cs	3.9 mi.	7.0 min.
Station 2	16930 Four Gee Road San Diego, California 92127	Paramedic, Type 1 Engine Type 3 Brush Engine Reserve Unit Medic Unit	9 firefighters	6.5 mi.	11.1 min.
Station 3	6424 El Apajo Rancho Santa Fe, California 92067	Paramedic, Type1 Engine Reserve Unit	9 firefighters	5.3 mi.	9.1 min.
Station 4	18040 Calle Ambiente Rancho Santa Fe, California 92067	Paramedic, Type1 Engine Type 3 Brush Engine OES Unit Medic Unit	9 firefighters	3.5 mi.	6.75 min.

* Medic Unit is staffed by 1 EMT/1 Paramedic by CSA 17 private vendor
** Distance measured to most remote portion of site Aliso Canyon Project
*** Assumes travel to the primary project's farthest end on Aliso Canyon Road, a 35 mph travel speed, and does not include donning turnout gear and fire dispatch time.

Based on the Aliso Canyon Project site location in relation to existing RSFFPD stations, travel time to the site for the first responding engine from Station 4 to the most remote area of the project is within 6.75 minutes. Secondary response would arrive within 9 minutes from Stations 1 and 3. All response calculations are based on an average response speed of 35 mph, consistent with nationally recognized NFPA 1710. Based on these calculations, emergencies within the project can be responded to by RSFFPD's first arriving unit (average maximum initial response of no more than 7.0 minutes, 90% of calls in accordance with the Fire District's standard). The San Diego County General Plan utilizes a 5 minute response time goal for urban areas and up to a 20 minute or more response time for rural areas. The 5 minutes is for travel time and is based on the time typically involved in a room fire reaching the point of "flashover" where control is very difficult and the critical time following a heart attack or stroke for medical intervention. From a fire perspective, the ignition resistant features and interior sprinklers provided the project's residences will effectively minimize fires and extend the occurrence of flashover. Sprinklers have proven very effective at limiting interior fires to the room of origin, and by doing so, extending the time needed for firefighter intervention. There is no mitigation for medical emergencies in this area. The number of calls projected from the project and the total

time over the 5 minute travel time is not anticipated to reduce the District's overall call response averages over time. The project includes two acre lots or larger and is arguably within a semi-rural area where longer response times are expected. In this case, a 10 minute response time is likely the anticipation and the project is well within this timeframe.

4.2 Buildings, Infrastructure and Defensible Space

The County Consolidated Fire Code and Building Codes in addition to RSFFPD Ordinances govern the building, infrastructure, and defensible space requirements detailed in this FPP. The project will meet or exceed applicable codes or will provide alternative materials and/or methods.

The following summaries highlight important fire protection features. All underground utilities, hydrants, water mains, curbs, gutters, and sidewalks will be installed and the drive surface shall be approved prior to combustibles being brought on site.

4.2.1 Fire Access

4.2.1.1 Primary

The primary project access for Aliso Canyon Project will be Del Dios Highway to El Camino Del Norte to Aliso Canyon Road. The Aliso Canyon Road width ranges from approximately 24 to 31 feet wide and is paved with an all-weather road surface to El Camino Del Norte.

4.2.1.2 Secondary/Emergency

The project as currently designed exceeds the maximum allowable dead-end road length for Aliso Canyon Road per section 503.1.3 of the County Consolidated Fire Code (CCFC). Section 104.8 of the CCFC allows the fire code official to grant modifications for individual cases, provided that the fire code official shall first find that special individual reason makes the strict letter of the code impracticable, the modification is in compliance with the intent and purpose of the code, and that such modification does not lessen health, life and fire safety requirements. The applicant submitted Appendix E: Request for Modification to Section 503.1.3: Dead-end Roads, which addresses findings and mitigation measures for secondary road access that meet or exceed the general plan goals and policies. Appendix F confirms that both the County and RSFFPD would accept the modification request.

4.2.1.3 Entrances

No gates or speed bumps or humps would be requested or allowed in this project. This would allow traffic flow (ingress and/or egress) to move more rapidly in the case of emergency.

4.2.1.4 Dead Ends

The new roadway "Street "A" would be 30 feet wide with parking allowed on one side (24-foot unobstructed travel lanes) and would be looped to Aliso Canyon Road from Pacifica Ranch Drive, approximately 1,325 feet from Pacific Ranch Drive. The Private Road Standard is 24 feet wide. The section of roadway along Aliso Canyon Road from Pacific Ranch Drive to the proposed Street "A" is currently paved and will be widened to 24 feet. It varies in width from 22 feet to 24 feet currently and is a private road. It currently supports the loads of a fire apparatus. This proposal exceeds the minimum standard and allows traffic flow to move more rapidly.

4.2.1.5 Width and Turning Radius

All proposed private streets will have a minimum paved width of 30 feet. Vehicles are allowed to park on one side of the street. "No Parking" signs will be installed on one side of the street, once the asphalt is installed and prior to the beginning of construction of any structure. Turning radius for fire apparatus access roads will be 28 feet as measured on the inside edge of the improved width.

4.2.1.6 Grade

The maximum grade for new roads and driveways on Aliso Canyon Project will not exceed 8%.

4.2.1.7 Surface

All fire access and vehicle roadways will be of asphaltic concrete, except as noted, and designed and maintained to support the imposed loads of fire apparatus (not less than 75,000 pounds) that may respond, including Type I engines, Type III engines, and ambulances. Access roads shall be completed and paved prior to issuance of building permits and prior to combustible construction occurring.

4.2.1.8 Vertical Clearance

Minimum unobstructed vertical clearance of 13 feet 6 inches will be maintained for the entire required width for all streets, including driveways that require emergency vehicle access.

4.2.1.9 Identification

Identification of roads and structures will comply with RSFFPD Fire Code, Section 505.1, as follows:

- All structures shall have a permanently posted address, which shall be legible from the street. If it is not legible from the street, an address shall also be posted at street entrance to driveway and shall be visible from both directions of travel.
- Numbers shall be 4 inches high with 0.5-inch stroke. Numbers will contrast with background.

4.2.2 Water

Water service for the Aliso Canyon Project will be provided by OMWD and will be consistent with RSFFPD requirements (Section 507.2/507.3). The water system is public and metered. The minimum fire flow requirements for the project will be 2,500 gallons per minute at 20 psi, compliant with the requirements of the County and Fire District. (See Appendix E: Attachment #2.)

4.2.2.1 Hydrants

Additional fire hydrants would be placed every 350 feet along the roadway occurring on the project site (Figure 4). Fire Code requirement is 500 feet to the structure. Hydrant tests in the area indicate 1,800 gallons per minute at 140 residual psi (See Appendix E: Attachment #2). The additional fire hydrants assist fire district operations by reducing operational time to extinguish fires. A three-foot clear space (free of ornamental landscaping and retaining walls) shall be maintained around the circumference of all fire hydrants. Hydrants will be in place and serviceable prior to delivery of combustible materials to the site.

4.2.2.2 Fire Sprinklers

All structures will be provided with fire sprinklers per RSFFPD and County Fire Code requirements. Automatic, internal fire sprinklers shall be in accordance with NFPA 13-D (RSFFPD 2011-01, Section 903. 2) Automatic Fire Sprinkler System requirements.

4.2.3 Pre-Construction Requirements

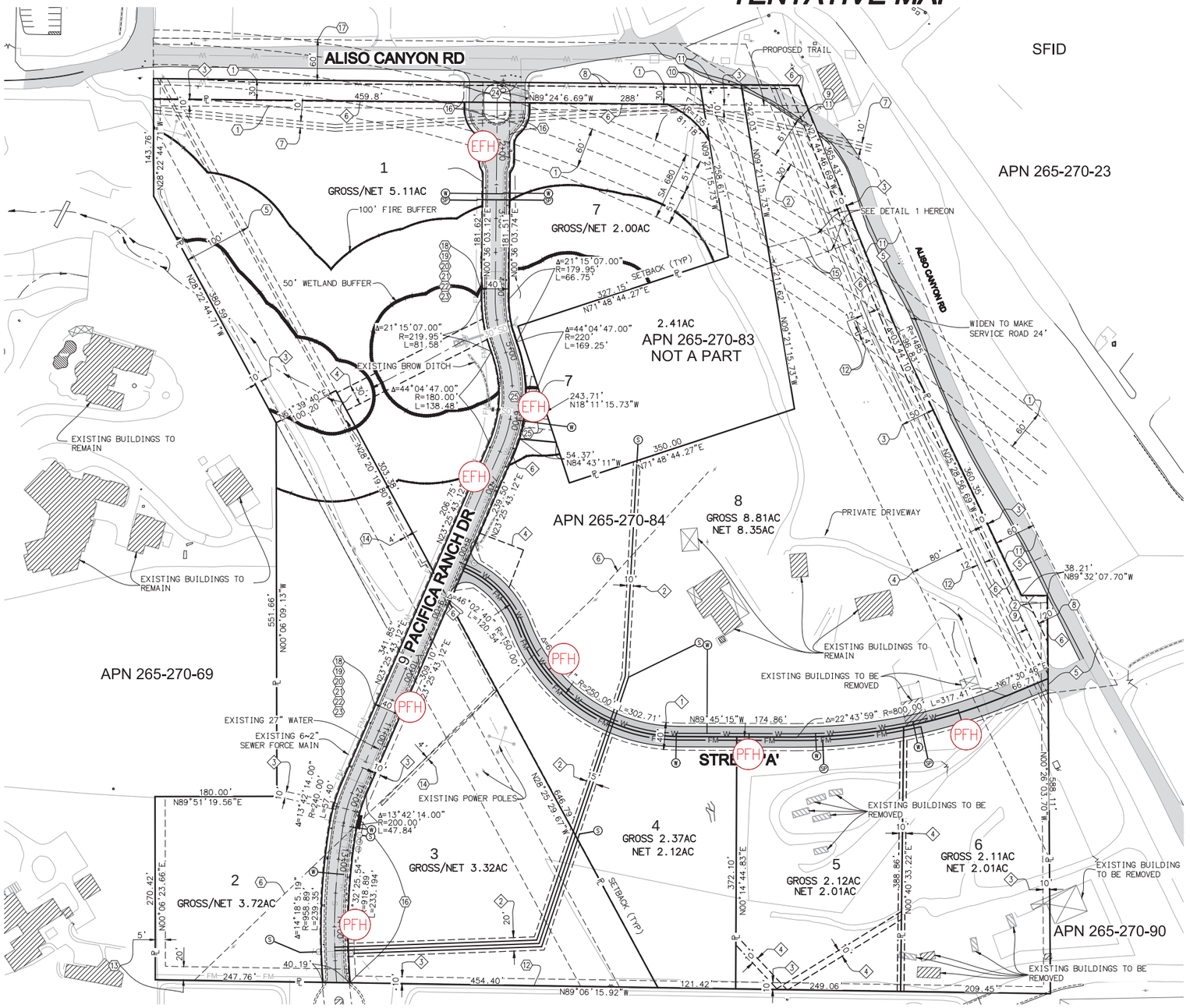
Prior to bringing combustible materials onto the site, utilities shall be in place, fire hydrants operational, an approved all-weather roadway in place, and fuel modification zones established and approved.

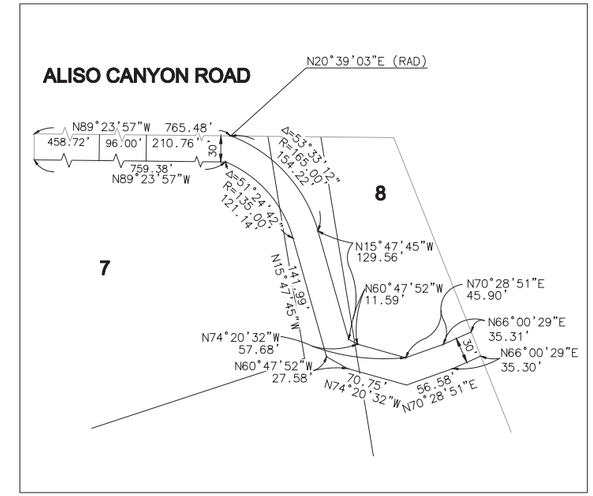
4.3 Ignition Resistant Construction and Fire Protection Systems

All new structures will be constructed to RSFFPD and County Fire Code standards. Each of the proposed buildings will comply with the enhanced ignition-resistant construction standards of the 2013 California Building Code (Chapter 7A). These requirements address roofs, eaves, exterior

COUNTY OF SAN DIEGO TRACT TM 5589 - ALISO CANYON SUBDIVISION

TENTATIVE MAP





1 EASEMENT 15 DETAIL
SCALE: 1"=80'

PROPOSED EASEMENTS

	DESCRIPTION
1	40' PRIVATE ROAD AND UTILITY EASEMENT FOR STREET 'A'
2	PRIVATE SEWER EASEMENT
3	10' PUBLIC TRAIL EASEMENT
4	10' PRIVATE DRAINAGE EASEMENT
5	PRIVATE ACCESS EASEMENT FOR ALISO CANYON ROAD
6	1' RESTRICTED ACCESS EASEMENT

EXISTING EASEMENTS

	DESCRIPTION	FINAL STATUS
1	REJECTED PUBLIC ROAD EASEMENT PER PARCEL MAP 12526	TO BE VACATED
2	RANCHO CIELO SANITATION DISTRICT EASEMENT #87-619965 - 11/04/1987	TO REMAIN
3	SAN DIEGO COUNTY WATER AUTHORITY EASEMENT PER #60-25441 - 02/08/1960	TO REMAIN
4	SAN DIEGO COUNTY WATER AUTHORITY EASEMENT PER #27717 - 02/16/1971	TO REMAIN
5	SDGE EASEMENT PER BK1023 PG 413 - 05/28/1940	TO REMAIN
6	SDGE EASEMENT PER BK3363 PG 128 - 10/25/1949	TO REMAIN
7	SDGE EASEMENT PER #1997-0094863 - 03/04/1997	TO REMAIN
8	OLIVENHAIN WATER DISTRICT EASEMENT PER DOC #75-030514 - 02/10/1975	TO REMAIN
9	OLIVENHAIN WATER DISTRICT EASEMENT PER DOC #85-166796 - 05/13/1985	TO REMAIN
10	OLIVENHAIN WATER DISTRICT EASEMENT PER DOC #85-192385 - 05/31/1985	TO REMAIN
11	PRIVATE ROAD AND UTILITY EASEMENT PER DOC #201878 - 11/05/1964	TO REMAIN
12	SDG&E EASEMENT PER DOC #198581 - 11/01/1965	TO REMAIN
13	RANCHO SANTA FE COMMUNITY SERVICES DISTRICT EASEMENT PER #2004-0509517 - 06/02/2004	TO REMAIN
14	PAC. TEL AND TEL EASEMENT PER DOC # 67-54438 - 04/19/1967	TO REMAIN
15	ROAD EASEMENT PER DOC #2011-0397926 08/04/2011	TO REMAIN
16	RANCO SANTA FE COMMUNITY SERVICES DISTRICT EASEMENT FOR SEWERLINE PER DOC #2005-0156193 02/25/2005	TO REMAIN
17	PRIVATE ROAD EASEMENT PER DOC #121888 - 07/18/1962	TO REMAIN
18	ROAD AND UTILITY EASEMENT PER DOC # 1998-0585478 - 09/15/1988, MOD #2004-0509518 - 06/02/2004	TO REMAIN
19	SEWER EASEMENT PER DOC #2004-0509519 - 06/02/2004	TO REMAIN
20	ROAD MAINTENANCE EASEMENT PER DOC #2004-0509520 - 05/02/2004	TO REMAIN
21	LANDSCAPING EASEMENT PER DOC #2004-0509521 - 06/02/2004	TO REMAIN
22	PUBLIC UTILITIES EASEMENT PER DOC #2004-1185194 - 12/16/2004	TO REMAIN
23	WATERLINE EASEMENT PER DOC #2005-0156194 - 02/25/2005	TO REMAIN
24	EASEMENT FOR INGRESS, EGRESS, AND PUBLIC UTILITIES	TO REMAIN
25	ROAD AND UTILITY EASEMENT PER DOC # 2012-0764227	TO REMAIN

LEGAL DESCRIPTION

THOSE PORTIONS OF PARCELS 1 AND 2 OF PARCEL MAP NO. 12526, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JANUARY 20, 1983 AS FILE/PAGE NO. 83-021056 OF OFFICIAL RECORDS.

80 40 0 80 160 240
SCALE: 1"=80'

ENGINEER OF WORK
Timothy Thiele 06/16/14
TIMOTHY M. THIELE, R.C.E. C60283 DATE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY M. THIELE No. C60283 CIVIL STATE OF CALIFORNIA

ALISO CANYON SUBDIVISON
COUNTY OF SAN DIEGO, CA
TM 5589
SHEET 2 OF 2
AUGUST 2014

RBF CONSULTING
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walls, vents, appendages, windows, and doors and result in hardened structures that have been proven to perform at high levels (resist ignition) during the typically short duration of exposure to burning vegetation from wildfires.

There are two primary concerns for structure ignition: 1) radiant and/or convective heat and 2) burning embers (NFPA 1144 2008, Ventura County Fire Protection District 2011, IBHS 2008, and others). Burning embers have been a focus of building code updates for at least the last decade, and new structures in the WUI built to these codes have proven to be very ignition resistant. Likewise, radiant and convective heat impacts on structures have been minimized through the Chapter 7A exterior fire ratings for walls, windows and doors. Additionally, provisions for modified fuel areas separating wildland fuels from structures have reduced the number of fuel-related structure losses. As such, most of the primary components of the layered fire protection system provided the project are required by RSFFPD, County of San Diego, and state codes but are worth listing because they have been proven effective for minimizing structural vulnerability to wildfire and, with the inclusion of required interior sprinklers (required in the 2013 Building/Fire Code update), of extinguishing interior fires, should embers succeed in entering a structure. Even though these measures are now required by the latest Building and Fire Codes, at one time, they were used as mitigation measures for buildings in WUI areas, because they were known to reduce structure vulnerability to wildfire. These measures performed so well, they were adopted into the code. The following project features are required for new development in WUI areas and form the basis of the system of protection necessary to minimize structural ignitions as well as providing adequate access by emergency responders:

1. Application of Chapter 7A, ignition resistant building requirements
2. Minimum 1-hour rated exterior walls and doors
3. Multi- pane glazing with a minimum of one tempered pane, (Aliso Canyon Project will have both panes tempered) fire-resistance rating of not less than 20 when tested according to NFPA 257 (such as SaftiFirst, SuperLite 20-minute rated glass product), or be tested to meet the performance requirements of State Fire Marshal Standard 12-7A-2.
4. Ember resistant vents (recommend BrandGuard, O'Hagin or similar vents) All ventilation for the structures for the development would require ember-resistant vents in addition to 1/8 screening. *This exceeds current Building Code requirements.*
5. Automatic, Interior Fire Sprinkler System will be installed for all habitable dwellings and garages.
6. Modern infrastructure, access roads, and water delivery system.

4.3.1 Additional Mitigation Measures for the Aliso Canyon Project

1. Off-site additional mitigation would be the addition of "No Parking" signs and "Speed Limit" signs along Aliso Canyon Road to the proposed new looped road at Aliso Canyon Road. Also, the project would provide "Exit Directional Route" signs along Aliso Canyon Road. The signs would help stop parking on Aliso Canyon Road and help avoid confusion during an evacuation for both residents and non-residents, thus aiding fire department ingress and resident egress.
2. General fire setbacks of all structures would be 50 feet from property lines. The current code is 30 feet from property lines for properties located in a Very High Fire Hazard Severity Zone. The current code could allow other small structures to be closer to property lines based upon zoning and building codes.
3. All trash enclosures would be located at least 10 feet from any structures. Any combustible attachments to the structures (i.e., fences, gates, patio covers, and awnings) shall be located a minimum of 5 feet away from the structure. Trash enclosures are not addressed in the Building Code.
4. Annual weed abatement notices will be mailed to all property owners in the Fire District.
5. There would be a 1- to 3-foot landscape-free area adjacent to stucco building structures' foundations. This would prevent flame impingement under the stucco along the weep screed and help prevent ember penetration into the structure stucco walls. Not addressed in the Building Code.
6. A Fire, Disaster, and Emergency Preparedness Working Guide shall be developed for the project covering the following subjects:
   i. Preparing your home – landscaping and home.
   ii. Preparing your communications – 911, contact information, telephone usage, email, radio stations, and useful links using the internet.
   iii. Preparing yourself and family – emergency routes out.
   iv. Preparing for imminent evacuation.
   v. Preparing your pets and animals.
   vi. Maps showing exit routes.
   vii. Main evacuation routes and public safe zones.
7. A formal landscaping plan would be required for the project and it's seven new parcels. Landscaping would be maintained on an ongoing basis.

4.4 Defensible Space and Vegetation Management

4.4.1 Fuel Modification

A fuel modification zone (FMZ) is an important component of a fire protection system for the project site. Fuel modification zones are designed to gradually reduce fire intensity and flame lengths from advancing fire by strategically placing thinning zones, restricted vegetation zones, and irrigated zones adjacent to each other on the perimeter of the WUI exposed structures. The site's FMZ's will be detailed on landscape plans that are submitted for review by RSFFPD during the building permit approval process. Therefore, landscape improvement plans are not indicated on the Tentative Map.

4.4.1.1 Fuel Modification Zone Requirements

The RSFFPD Ordinance 2011-01 (Section 4907.3 - Fuel Modification) requires that fuel modification zones be provided around every building that is designed primarily for human habitation. Decks, sheds, gazebos, freestanding open-sided shade covers and similar accessory structures less than 250 square feet and 30 feet or more from a dwelling, and fences more than 5 feet from a dwelling, are not considered structures for the establishment of a fuel modification zone. Fuel modification zones on the project site shall comply with the following:

4.4.1.2 Residence Fuel Modification Zone Guidelines

1. The area within 50 feet of a building or structure shall be cleared of vegetation that is not fire resistant and re-planted with fire-resistant plants. In the area between 50–100 feet from a building (where applicable), all dead and dying vegetation shall be removed. Native vegetation may remain in this area provided that the vegetation is modified so that combustible vegetation does not occupy more than 50% of the square footage of this area. Weeds and annual grasses are to be mowed to a height of 4–6 inches. Any chipping that is done on site should be spread not to exceed 6 inches in height. Trees may remain in both areas provided that the horizontal distance between crowns of adjacent trees and crowns of trees and structures is not less than 10 feet.
2. When a building or structure in a hazardous fire area is setback less than 100 feet from the property line, the person owning or occupying the building or structure shall meet the requirements in subsection (1) above, to the extent possible, in the area between the building or structure and the property line.
3. The County and RSFFPD may provide lists of prohibited and recommended plants. This FPP includes a proposed list of prohibited plants (Appendix D).

4. The fuel modification zone will be located entirely on the Aliso Canyon Project property. In some locations, required fuel modification zone may be reduced as allowed in subsection (2) above or increased as required by a fire protection plan. Where necessary, this FPP provides for alternative materials and methods of structure hardening to achieve equivalent protection as the full fuel modification zone.
5. When the subject property contains an area designated to protect biological or other sensitive habitat or resource, no building or other structure requiring a fuel modification zone shall be located so as to extend the fuel modification zone into a protected area.

   To ensure long-term identification and maintenance, permanent markers will be installed to identify the 100 feet fuel modification zone.

5 PROJECT SITE FUEL MODIFICATION ZONES AND SETBACKS

5.1 Roadway Fuel Modification Zones

Roadway fuel modification is addressed by the RSFFPD Ordinance 2011-01 (Section 4907.3.1 - Fuel Modification of Combustible Vegetation from Sides of Roadways). RSFFPD's Fire Marshal may require a property owner to modify combustible vegetation in the area within 20 feet from each side of the driveway or a public or private road adjacent to their property to establish a fuel modification zone.

5.2 Special Fuel Management Issues

Trees may be planted within FMZs as long as they conform to the RSFFPD's Ordinance 2011-01 (Section 4907.3.Trees). On the Project site, tree planting in the fuel modification zones and along roadways is acceptable, as long as they meet the following restrictions as described below and in the Vegetation Management Section:

- For streetscape plantings, fire resistive trees can be planted 10 feet from edge of curb to center of tree trunk. Care should be given to the type of tree selected, that it will not encroach into the roadway, or produce a closed canopy effect.
- Crowns of trees located within defensible space shall maintain a minimum horizontal clearance of 10 feet for fire resistant trees. Mature trees shall be pruned to remove limbs one-third the height or 6 feet, whichever is less, above the ground surface adjacent to the trees.
- Dead wood and litter shall be regularly removed from trees.
- Ornamental trees shall be limited to groupings of 2–3 trees with canopies for each grouping separated horizontally as described in Table 3 (Table 4907.3.1 from RSFFPD Ordinance 2011-01).

Table 3
Distance between Tree Canopies by Percent Slope

Percent of Slope	Required Distances Between Edge of Mature Tree Canopies (1)
0–20	10 feet
21–40	20 feet
41+	30 feet

1 Determined from canopy dimensions as described in Sunset Western Garden Book (Current Edition)

5.3 Specific Landscaping Requirements

Plants used in the fuel modification areas or landscapes will include drought-tolerant, fire resistive trees, shrubs, and groundcovers. The planting list and spacing will be reviewed and approved by RSFFPD, included on submitted landscape plans. The plantings will be consistent with RSFFPD's Plant and Landscape Guide (RSFFPD 2014). The intent of the list is to provide examples of plants that are less prone to ignite or spread flames to other vegetation and combustible structures during a wildfire. Additional Plants can be added to the landscape plant material palette with the approval from RSFFPD and the County of San Diego.

Landscape plans shall be in accordance with the following criteria:

1. Landscape Plan prepared and submitted for each developed lot in compliance with RSFFPD's Fire Code Ordinance 2011-01, Sections 4907.5.1–4907.5.3). Landscape plans will be submitted to RSFFPD for approval before the "hydro-framing" inspection.
2. All fire resistive tree species shall be planted and maintained at a minimum of 10 feet from the tree's drip line to any combustible structure. Non-fire resistive trees (including conifers, pepper trees, eucalyptus, cypress, and palms (Washingtonia and Phoenix species)), shall be planted and maintained 30 feet from structures.
3. Limit planting of large unbroken masses especially trees and large shrubs. Groups should be 2–3 trees maximum, with mature foliage of any group separated horizontally by at least 10 feet, if planted on less than 20% slope, and 20 feet, if planted on greater than 20% slope. If shrubs are located underneath a tree's drip line, the lowest branch should be at least three times as high as the understory shrubs or 10 feet, whichever is greater.
4. All tree branches shall be removed within 10 feet of a fireplace chimney or outdoor barbecue.
5. Non-combustible surface (pavement, concrete, decomposed granite, etc.) for pathways around structures for fire fighter access to side yards and backyards.
6. Combustible mulches and wood chips must be 1 to 2 foot away from any side of a combustible structure with weep screeds.
7. Irrigated wet zone (water conserving irrigation systems with efficient drip emitters and "smart" controllers and use of California Friendly landscape concepts)
8. No tree limb encroachment within 10 feet of a structure or chimney, including outdoor fireplaces.
9. Tree maintenance includes climbing-up (canopy rising) 6 feet or one-third the height of the tree, whichever is greater, and removal of dead foliage and branches.

5.4 Pre-Construction Requirements

- Perimeter fuel modification areas must be implemented prior to commencement of construction utilizing combustible materials.
- Existing flammable vegetation shall be reduced by 60% on vacant lots upon commencement of construction.
- Dead fuel, ladder fuel (fuel which can spread fire from ground to trees), and downed fuel shall be removed and trees/shrubs shall be properly limbed, pruned, and spaced per this plan.
- The remainder of the FMZs required for the particular lot shall be installed and maintained prior to combustible materials being brought onto any lot under construction.

5.5 Environmentally Sensitive Areas/Riparian Areas

Fuel modification in environmentally sensitive areas, if any are encountered, will require approval from the County and the appropriate resource agencies (California Department of Fish and Game and U.S. Fish and Wildlife Service) prior to any vegetation management activities occurring within those areas.

5.6 Prohibited Plants

Certain plants are considered to be undesirable in the landscape due to characteristics that make them highly flammable. These characteristics can be physical or chemical.

The plants included in the Prohibited Plant List (Appendix D) are unacceptable from a fire safety standpoint, and shall not be planted on the site unless otherwise approved by the RSFFPD.

5.7 Vegetation Management Compliance Schedule

All fuel modification area vegetation management shall be completed annually by June of each year and more often as needed for fire safety, as determined by the RSFFPD. The homeowner shall be responsible for all vegetation management throughout the common areas of the project site, in compliance with the requirements detailed herein and RSFFPD requirements. The homeowner hall be responsible for ensuring long-term funding and ongoing compliance with all provisions of this FPP, including vegetation planting, fuel modification, vegetation management, and maintenance requirements throughout the private portions of the Aliso Canyon Project site.

5.8 Zone 1 – Irrigated Zone (Structure to Property Boundary)

Zone 1 is measured on a horizontal plane from the structure outward to property boundary. Zone 1 would include permanent field markers at the property line, aiding ongoing maintenance activities that will occur on site. Planting used in the fuel modification areas will include drought-tolerant, fire resistive trees, shrubs, and groundcovers. The plantings will be consistent with RSFFPD's Plant and Landscape Guide.

These landscape plans will be modified to include restrictions specified herein that will include fuel modification zone wide irrigation and species less prone to ignite or spread flames to other vegetation and combustible structures during a wildfire. Additional plants can be added to the landscape plant material palette with the approval from RSFFPD and the County of San Diego. Other specific requirements in addition to the standard FMZ requirements for both Lots are as follows:

1. Single specimens of trees, ignition-resistive shrubs, or cultivated ground cover, such as green grass, succulents, or similar plants used as ground covers, may be used, provided they do not form a means of readily transmitting fire. Plant material will be selected from approved lists mentioned above.
2. No tree crowns within 10 feet of structures (at maturity) if the trees are considered fire resistive per RSFFPD standards. Non-fire resistive trees, such as pines, palms, and cypress, are not allowed in the backyard or side yards for both lots.

6 FUEL SEPARATION

As experienced in numerous wildfires, including the most recent fire storms in San Diego County (2003 Cedar and 2007 Witch Creek), homes in the WUI are potential fuel. The distance between the wildland fire that is consuming wildland fuel and the home ("urban fuel") is the primary factor for structure ignition (not including burning embers). The closer a fire is to a structure, the higher the level of heat exposure (Cohen 2000). However, studies indicate that given certain assumptions (e.g., 10 meters of low fuel landscape, no open windows), wildfire does not spread to homes unless the fuel and heat requirements (of the home) are sufficient for ignition and continued combustion (Cohen 1995, Alexander et al. 1998). Construction materials and methods can prevent or minimize ignitions. Similar case studies indicate that with nonflammable roofs and vegetation modification from 10–18 meters (roughly 32–60 feet) in southern California fires, 85–95% of the homes survived (Howard et al. 1973, Foote and Gilless 1996). Similarly, San Diego County after fire assessments indicate strongly that the building codes are working in preventing home loss: of 15,000 structures within the 2003 fire perimeter, 17% (1,050) were damaged or destroyed. However, of the 400 structures built to the 2001 codes (the most recent at the time), only 4% (16) were damaged or destroyed. Further, of the 8,300 homes that were within the 2007 fire perimeter, 17% were damaged or destroyed. A much smaller percentage (3%) of the 789 homes that were built to 2001 codes were impacted and an even smaller percentage (2%) of the 1,218 structures built to the 2004 Codes were impacted (IBHS 2008). Damage to the structures built to the latest codes is likely from flammable landscape plantings or objects next to structures or open windows or doors.

These results support Cohen's (2000) findings that if a community's homes have a sufficiently low home ignitability (i.e., 2010 City of San Diego Building Code), the community can survive exposure to wildfire without major fire destruction. This provides the option of mitigating the wildland fire threat to homes/structures at the residential location without extensive wildland fuel reduction. Cohen's (1995) studies suggest, as a rule-of-thumb, larger flame lengths and widths require wider fuel modification zones to reduce structure ignition. For example, valid SIAM results indicate that a 20-foot high flame has minimal radiant heat to ignite a structure (bare wood) beyond 33 feet (horizontal distance). Whereas, a 70-foot high flame requires about 130 feet of clearance to prevent structure ignitions from radiant heat (Cohen and Butler 1996). This study utilized bare wood, which is more combustible than the ignition resistant exterior walls for structures built today. As indicated in this report, the FMZs and additional fire protection measures proposed for this project provide equivalent wildfire buffer. They are based on a variety of analysis criteria including predicted flame length, fire intensity (Btu), site topography and vegetation, extreme and typical weather, position of structures on pads, adjacent fuels, neighboring communities relative to the proposed project, and type of construction. The fire intensity research conducted by Cohen (1995), Cohen and

Butler (1996), Cohen and Saveland (1997), and Tran et al. (1992) supports the fuel modification alternatives proposed for this project.

6.1 Exterior Windows

A potentially vulnerable structure component with regard to radiant or convective heat exposure is a structure's windows. To address this issue, it is worthwhile to examine the structure ignitability modeling, independent ignition experiments, and case studies that support fuel treatments as low as roughly 34 feet from structures, and compare them with the Aliso Canyon Project. Cohen's (1995) structure ignitability model (SIAM) assesses ignitability of bare wood when exposed to a continuous heat source. The model assumes a worst-case condition of a constant 1700 degrees (F). A constant, maximum heat source is typically not the case during a wildfire due to the movement of a fire, non-uniform vegetation distribution, and the lack of a uniform, constant flame front. Further, a flame temperature of 1700 degrees (F) is likely higher than would be experienced by the fuels adjacent this site, but is a valid temperature for testing, as Pyne et al. (1996) confirms that flaming combustion typically occurs in wildland fuels between flame temperatures of 1,466 to 2,186 degrees (F). For comparison, Dennison (2006) studied the heat signatures from a Southern California wildfire that was burning oak woodlands, dense chaparral, sparse chaparral, and grasslands. Results from this study indicate that the maximum temperature commonly observed was 2,200 degrees (F) and associated with the dense, higher fuel load oak and chaparral vegetation, while cooler (980–1340 degrees (F)) and smaller fires were associated with the mixed chaparral and grasslands. The analysis conducted for this report indicates that the structure setbacks only 5–15% less than the typical requirement, is adequate for separating the structures from the short-duration heat and flame associated with a fire burning toward the community in the fuels that occur adjacent this portion of the development. The typical duration of large flames from burning vegetation is on the order of 1 minute and up to several minutes for larger fuels at a specific location (Cohen 1995; Butler et al. 2003, Ramsay and Rudolph 2003, Cohen and Quarles 2011).

Tests of various glazing products indicate that single pane, tempered glass failure may occur between 120–185 seconds from exposure (University of California 2011; Manzello et al. 2007) but those tests include direct and constant heating that would not be experienced during a wildfire near this Project. Depending on the heat applied and the type of glass used in the various studies, the cracking/failure time varied. However, given the short duration of maximum heat (likely 60–90 seconds for the largest shrubs), the loss of heat over distance (100 feet minimum), and the fire-rated minimum 20-minute glazing specified for this project, wildfire heat and flame will be deflected and heat experienced by the windows from the wildland fire is not expected to be enough (in temperature or duration) to cause window failure. Quarles et al. (2010) provides strong endorsement for tempered (toughened) glass

performance. His research and tests conclude that multi-pane (2–3 panes) with at least one pane tempered is well-suited for wildfire exposures. He indicates that tempered glass is at least four times stronger and much more resistant to thermal exposures than normal annealed glass. The use of code required dual pane, one pane tempered glass provides several benefits, with thermal exposure performance the most important for this study. This project would utilize dual pane, both panes tempered to increase the thermal and overall strength of the exposed windows.

6.2 Fire Structure Setbacks from Property lines

The current code is 30 feet from property lines. Fire setbacks for Aliso Canyon project would a minimum of 50 feet from property lines. The current code does allow other small structures to be closer to property lines based upon zoning and building codes.

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7 CUMULATIVE IMPACT ANALYSIS

Cumulative impacts from multiple projects can cause fire response service decline and must be analyzed for each project. The Aliso Canyon Project and its proposed 7 residences and approximately 22 residents represent minimal anticipated increases in fire and emergency medical response needs. However, when considered cumulatively with other projects planned in the RSFFPD's jurisdictional area, the cumulative impact is considered potentially significant.

Despite the generally very low increase in number of calls per year from the Aliso Canyon Project site, the project contributes to the cumulative impact on fire services, when considered with other anticipated projects within the RSFFPD's primary response area. Without additional resources over time, the cumulative impact may result in a situation where the RSFFPD response capabilities erode and service levels decline. The project's contributions to fire resources through building fees and ongoing property tax allocations, along with state fire fees, combined with the same contributions from future development in the area are expected to result in funding that can be used for enhancing RSFFPD's response capabilities and at least maintaining the current standards for firefighting and emergency response. Over the long term, it is anticipated that RSFFPD will be able to perform its mission into the future at levels consistent with the County Consolidated Fire Code and the San Diego County General Plan.

The requirements described in this FPP, including ignition-resistive construction, additional fire protection systems, and fuel modification/vegetation management, are designed to aid firefighting personnel such that Aliso Canyon Project people and structures are protected and impacts to the RSFFPD are minimal. Based on the type of wildfire anticipated/modeled for this area and the corresponding fire protection project features, including conformance with building and fire codes, ongoing maintenance of roads, infrastructure, vegetation management and defensible space results in a potentially significant, but mitigated cumulative impact.

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8 CONCLUSION

This FPP is submitted in support of an application for project entitlement of the development project. It is submitted in compliance with requirements of the County's and RSFFPD's condition for FPP content. The requirements in this document meet fire safety, building design elements, fuel management/modification, and landscaping recommendations of the RSFFPD. Where the project does not strictly comply with the Code, such as with some fuel modification zone widths, alternative materials and methods have been proposed that provide functional equivalency as the code intent.

Fire and Building Codes and other local, county, and state regulations in effect at the time of each building permit application supersede these recommendations unless the FPP recommendation is more restrictive.

The recommendations provided in this FPP have been designed specifically for the proposed construction of structures adjacent the WUI zone at the Aliso Canyon Project site. The project site's fire protection system includes a redundant layering of protection methods that have been shown through post-fire damage assessments to reduce risk of structural ignition and compensate for fuel modification area reductions. Modern infrastructure will be provided along with implementation of the latest ignition resistant construction methods and materials. Further, all structures are required to include interior, automatic fire sprinklers consistent with RSFFPD Ordinance No. 2011-01. Fuel modification will occur on exposed edges and adjacent biological preserve areas of the project site. The fuel modification zone will be maintained and inspected annually by the homeowners and RSFFPD.

Ultimately, it is the intent of this FPP to guide, through code and other project specific requirements, the construction of structures that are defensible from wildfire and, in turn, do not represent significant threat of ignition source for the adjacent native habitat. It must be noted that during extreme fire conditions, there are no guarantees that a given structure will not burn. Precautions and mitigating actions identified in this report are designed to reduce the likelihood that fire would impinge upon the proposed structures. There are no guarantees that fire will not occur in the area or that fire will not damage property or cause harm to persons or their property. Implementation of the required enhanced construction features provided by the applicable codes and the mitigating fuel modification requirements provided in this FPP will accomplish the goal of this FPP to assist firefighters in their efforts to defend these structures and reduce the risk associated with this project's WUI location. For maximum benefit, the developer, contractors, engineers, and architects are responsible for proper implementation of the concepts and requirements set forth in this report. Homeowners are responsible to maintain their structures and lots as required by this report, the applicable Fire Code, and RSFFPD.

Since the proposed development does not occur within a shelter-in-place community, it is recommended that the homeowners or other occupants who may reside within the Aliso Canyon Project neighborhood adopt a conservative approach to fire safety. This approach must include maintaining the landscape and structural components according to the appropriate standards and embracing a "Ready, Set, Go[1]" stance on evacuation. Accordingly, occupants should evacuate the residence and the area as soon as they receive notice to evacuate, or sooner, if they feel threatened by wildfire or structure fire in a nearby residence. Fire is a dynamic and somewhat unpredictable occurrence and it is important for residents to educate themselves on practices that will improve their home survivability and their personal safety.

[1] International Fire Chiefs Association "Ready, Set, Go" website link: http://wildlandfirersg.org/

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10 LIST OF PREPARERS

Project Manager/Lead Fire Protection Planner

Michael Huff
Fire Protection Planner; San Diego County California Environmental Quality Act Consultant List
Dudek

Fire Planner

Clifford F. Hunter
Wildfire Prevention and Suppression Professional
Dudek

Fire Planner and Fire Behavior Modeling

Michael Scott
Urban Forester
Dudek

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APPENDIX A

Photograph Log

Photo Log

BY: CLIFFORD HUNTER

JUNE 16, 2014

Aliso Canyon 7-Lot Subdivision

Photograph Log – for access roadways and proposed property location

Photograph 1. Looking North –El Camino Del Norte

Photograph 2. Looking South – El Camino Norte

Aliso Canyon 7-Lot Subdivision

Photograph Log – for access roadways and proposed property location

Photograph 3. Looking West - Aliso Canyon Road

Photograph 4. Looking West – Aliso Canyon Road From the Intersection of El Camino Del Norte

Aliso Canyon 7-Lot Subdivision

Photograph Log – for access roadways and proposed property location

Photograph 5. Looking North West from Aliso Canyon Road to proposed property

Photograph 6. Looking North from Aliso Canyon Road and the New Proposed Road

Aliso Canyon 7-Lot Subdivision
Photograph Log

Photograph 7. Looking West from Aliso Canyon Road towards "The Community of Cielo"

Photograph 8. Looking South-West to new Proposed Road and proposed property

Aliso Canyon 7-Lot Subdivision
Photograph Log

Photograph 9. Looking West towards Cielo and the Proposed property

Photograph 10. Looking from Pacific Ranch Drive to proposed property

Aliso Canyon 7-Lot Subdivision
Photograph Log

Photograph 11. Looking South down Pacifica Ranch Drive

Photograph 12. Looking South down Pacifica Ranch Drive – North exit from divided entrance

APPENDIX B

BehavePlus Fire Behavior Analysis

BEHAVEPLUS FIRE BEHAVIOR MODELING

Fire behavior modeling includes a high level of analysis and information detail to arrive at reasonably accurate representations of how wildfire would move through available fuels on a given site. Fire behavior calculations are based on site-specific fuel characteristics supported by fire science research that analyzes heat transfer related to specific fire behavior. To objectively predict flame lengths, spread rates, and fireline intensities, the BehavePlus 5.0.5 fire behavior modeling system was applied using predominant fuel characteristics, slope percentages, and extreme weather variables for the site.

Predicting wildland fire behavior is not an exact science. As such, the movement of a fire will likely never be fully predictable, especially considering the variations in weather and the limits of weather forecasting. Nevertheless, practiced and experienced judgment, coupled with a validated fire behavior modeling system, results in useful and accurate fire prevention planning information.

To be used effectively, the basic assumptions and limitations of BehavePlus must be understood.

- First, it must be realized that the fire model describes fire behavior only in the flaming front. The primary driving force in the predictive calculations is dead fuels less than one-quarter inch in diameter. These are the fine fuels that carry fire. Fuels greater than one inch have little effect while fuels greater than three inches have no effect on fire behavior.
- Second, the model bases calculations and descriptions on a wildfire spreading through surface fuels that are within six feet of the ground and contiguous to the ground. Surface fuels are often classified as grass, brush, litter, or slash.
- Third, the software assumes that weather and topography are uniform. However, because wildfires almost always burn under non-uniform conditions, length of projection period and choice of fuel model must be carefully considered to obtain useful predictions.
- Fourth, the BehavePlus fire behavior computer modeling system was not intended for determining sufficient fuel modification zone widths. However, it does provide the average length of the flames, which is a key element for determining “defensible space” distances for minimizing structure ignition.

Although BehavePlus has some limitations, it can still provide valuable fire behavior predictions which can be used as a tool in the decision-making process. In order to make reliable estimates of fire behavior, one must understand the relationship of fuels to the fire environment and be able to recognize the variations in these fuels. Natural fuels are made up of the various components of vegetation, both live and dead, that occur on a site. The type and quantity will depend upon the soil, climate, geographic features, and the fire history of the site. The major fuel groups of grass,

shrub, trees, and slash are defined by their constituent types and quantities of litter and duff layers, dead woody material, grasses and forbs, shrubs, regeneration, and trees. Fire behavior can be predicted largely by analyzing the characteristics of these fuels. Fire behavior is affected by seven principal fuel characteristics: fuel loading, size and shape, compactness, horizontal continuity, vertical arrangement, moisture content, and chemical properties.

The seven fuel characteristics help define the 13 standard fire behavior fuel models (Anderson 1982) and the more recent custom fuel models developed for southern California (Weise and Regelbrugge 1997). According to the model classifications, fuel models used in BehavePlus have been classified into four groups, based upon fuel loading (tons/acre), fuel height, and surface to volume ratio. Observation of the fuels in the field (on site) determines which fuel models should be applied in BehavePlus. The following describes the distribution of fuel models among general vegetation types for the standard 13 fuel models and the custom southern California fuel models:

- Grasses — Fuel Models 1 through 3
- Brush — Fuel Models 4 through 7, SCAL 14 through 18
- Timber — Fuel Models 8 through 10
- Logging Slash — Fuel Models 11 through 13

In addition, the aforementioned fuel characteristics were utilized in the recent development of 40 new fire behavior fuel models (Scott and Burgan 2005) developed for use in BehavePlus modeling efforts. These new models attempt to improve the accuracy of the standard 13 fuel models outside of severe fire season conditions, and to allow for the simulation of fuel treatment prescriptions. The following describes the distribution of fuel models among general vegetation types for the new 40 fuel models:

- Non-Burnable — Models NB1, NB2, NB3, NB8, NB9
- Grass — Models GR1 through GR9
- Grass-shrub — Models GS1 through GS4
- Shrub — Models SH1 through SH9
- Timber-understory — Models TU1 through TU5
- Timber litter — Models TL1 through TL9
- Slash blowdown — Models SB1 through SB4

BEHAVEPLUS FIRE BEHAVIOR MODELING INPUTS

Vegetation/Fuels

To support the fire behavior modeling efforts conducted for this Fire Protection Plan (FPP), the different vegetation types observed on site were classified into the aforementioned numeric fuel models. The site and off site vegetation is dominated primarily by Diegan Coastal Sage Scrub (Fuel Model SCAL 18), grasslands (Fuel Model 1), and ornamental vegetation (Fuel Model 10). Modeled areas include the sage scrublands-grasslands to the north and east and ornamental vegetation-grasslands to the northwest, west, south of the Aliso Canyon site, totaling four model runs. These sites were selected based on the strong likelihood of fire approaching from these directions during an on-shore weather pattern (Model Runs 3 and 4) and during a Santa Ana wind-driven fire event (Model Runs 1 and 2). Table 1 provides a description of the fuel models used in BehavePlus analysis for this project.

Table 1
BehavePlus Fuel Models

Vegetation Type	Fuel Model
Diegan Coastal Sage Scrub	SCAL 18
Grasslands (short)	1
Ornamental Vegetation	10

Weather

Fire behavior modeling conducted in support of this FPP utilized the guidelines and standards presented by the County of San Diego, Department of Planning and Land Use[1]. These guidelines identify acceptable fire weather inputs for extreme fire conditions during summer months and Santa Ana fire weather patterns. The County analyzed and processed fire weather from Remote Automated Weather Stations between April 15 to December 31 in order to represent the general limits of the fire season. Data provided by the County's analysis included temperature, relative humidity, and sustained wind speed and is categorized by weather zone, including Maritime, Coastal, Transitional, Interior, and Desert.

The prevailing wind pattern is from the west, but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are typically from the west–southwest (sea), and, at night, winds are from the northeast (land). During the summer season, the diurnal winds can be slightly stronger than the winds during the winter

[1] County of San Diego Report Format and Content Requirements – Wildland Fire and Fire Protection (August 31, 2010). On-line at http://www.sdcounty.ca.gov/dplu/docs/Fire-Report-Format.pdf

season due to greater pressure gradient forces. Surface winds can also be influenced locally by topography and slope variations. The highest wind velocities are typically associated with downslope, canyon, and Santa Ana winds.

In southern California the fire season typically starts in June as vegetation begins to dry out after winter and spring rains and typically ends in October, although fire weather may be present year round (Schroeder and Buck 1970). The highest fire danger for this area coincides with the Santa Ana winds. Santa Ana wind conditions are a reversal of the prevailing southwesterly winds that usually occur on a region-wide basis during late summer and early fall. They are dry, warm winds that flow from the higher desert elevations in the north through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Consequently, peak velocities are highest at the mouths of canyons and dissipate as they spread across valley floors.

To evaluate potential fire behavior for the project site, Dudek utilized the BehavePlus (v. 5.0.5) fire behavior modeling software package to determine fuel moisture values and expected fire behavior for the site. The temperature, relative humidity, and wind speed data for the Transitional[2] weather zone were utilized for this FPP based on the project location. Reference fuel moistures were calculated in BehavePlus and were based on site-specific topographic data inputs. Fire behavior modeling input values are presented below in Table 2.

Topography

The topography of the Aliso Canyon site is discussed in greater detail in the FPP. Slope is a measure of angle in degrees from horizontal and can be presented in units of degrees or percent. Slope is important in fire behavior analysis as it affects the exposure of fuel beds. Additionally, fire burning uphill spreads faster than those burning on flat terrain or down hill as uphill vegetation is pre-heated and dried in advance of the flaming front, resulting in faster ignition rates. Slope values for the Aliso Canyon site were measured from site topographic maps and are presented in units of percent.

The fire behavior modeling input variables for the Aliso Canyon site are presented in Table 2. Locations for each modeling run are presented graphically in Figure 3 of the FPP.

[2] http://mappingsandiego.com/viewMap.html

Table 2
BehavePlus Fire Behavior Modeling Inputs

Input Name	Summer Weather (Onshore Flow)	Peak Weather (offshore/Santa Ana Condition)
1h Moisture	3%	2%
10h Moisture	5%	3%
100h Moisture	7%	5%
Live Herbaceous Moisture	60%	30%
Live Woody Moisture	90%	50%
Midflame Wind Speed (mph)	20	40 (gusts at 50 mph)
Wind Adjustment Factor	0.5	0.5
Slope Steepness	0-10%	0-30%

BEHAVEPLUS FIRE BEHAVIOR MODELING RESULTS

Fire behavior for the site was calculated in four different locations using worst-case fuels and topography (steepest slopes). Two of the modeling scenarios analyzed potential fire behavior along the eastern and northern edges of the proposed development (Model Runs 1 and 2) during peak fire weather conditions. The other two modeling scenarios (Model runs 3 and 4) analyzed potential fire behavior along the western and southern edges of the proposed development during summer weather conditions.

Three fire behavior variables were selected as outputs from the BehavePlus analysis conducted for the Aliso Canyon site, and include flame length (feet), rate of spread (mph), and fireline intensity (BTU/feet/second). The aforementioned fire behavior variables are an important component in understanding fire risk and fire agency response capabilities. Flame length, the length of the flame of a spreading surface fire within the flaming front, is measured from midway in the active flaming combustion zone to the average tip of the flames (Andrews, Bevins, and Seli 2004). It is a somewhat subjective and non-scientific measure of fire behavior, but is extremely important to fireline personnel in evaluating fireline intensity and is worth considering as an important fire variable (Rothermel 1983). Fireline intensity is a measure of heat output from the flaming front, and also affects the potential for a surface fire to transition to a crown fire. Fire spread rate represents the speed at which the fire progresses through surface fuels and is another important variable in initial attack and fire suppression efforts. The information in Table 3 presents an interpretation of these fire behavior variables as related to fire suppression efforts. The results of fire behavior modeling efforts are presented in Table 4, as well as in Table 1 of the FPP. Additionally, identification of modeling run locations is presented graphically in Figure 3 of the FPP.

Table 3
Fire Suppression Interpretation

Flame Length (ft)	Fireline Intensity (Btu/ft/s)	Interpretations
Under 4 feet	Under 100 BTU/ft/s	Fires can generally be attacked at the head or flanks by persons using hand tools. Hand line should hold the fire.
4 to 8 feet	100-500 BTU/ft/s	Fires are too intense for direct attack on the head by persons using hand tools. Hand line cannot be relied on to hold the fire. Equipment such as dozers, pumpers, and retardant aircraft can be effective.
8 to 11 feet	500-1000 BTU/ft/s	Fires may present serious control problems -- torching out, crowning, and spotting. Control efforts at the fire head will probably be ineffective.
Over 11 feet	Over 1000 BTU/ft/s	Crowning, spotting, and major fire runs are probable. Control efforts at head of fire are ineffective.

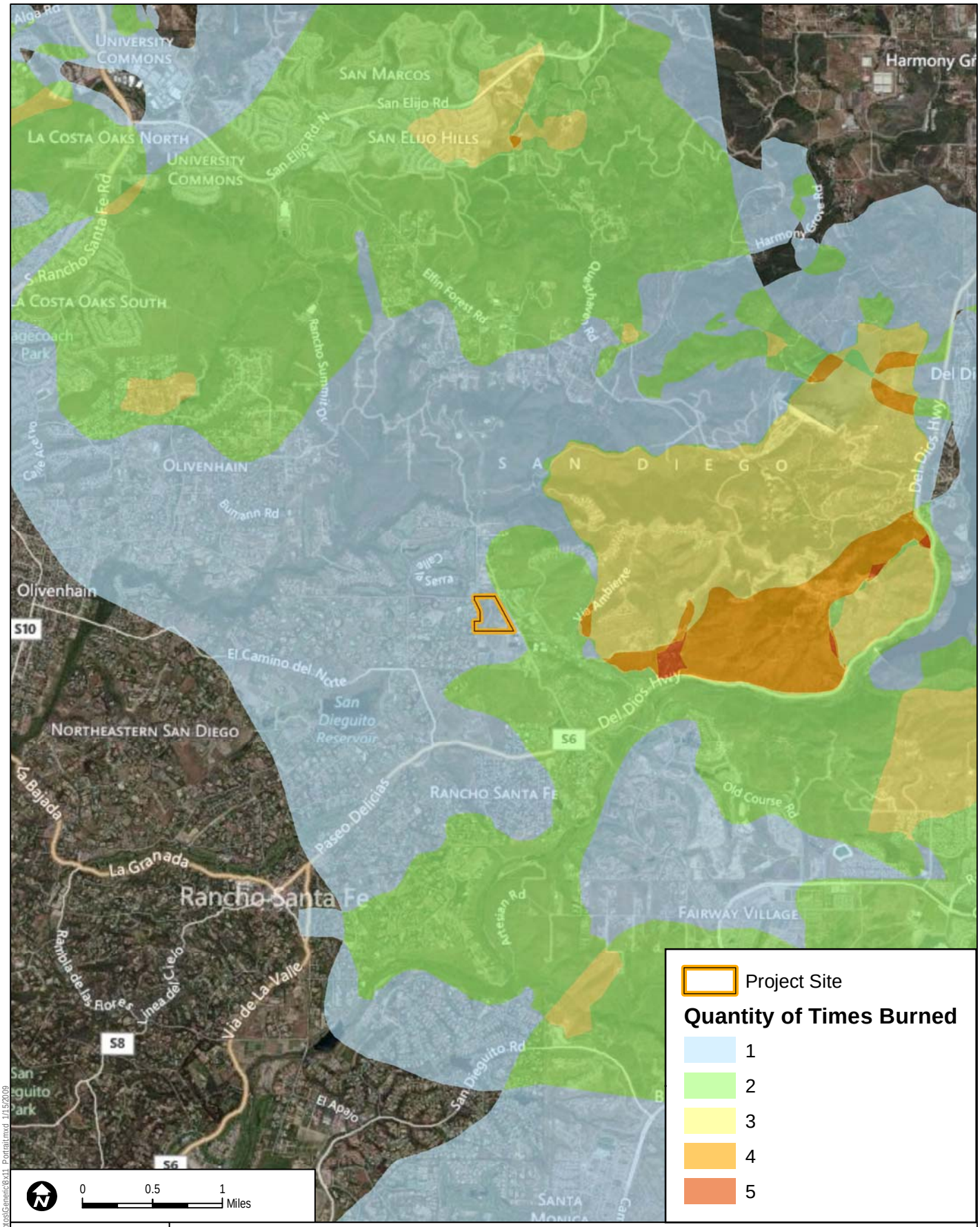
SOURCE: BehavePlus 5.0.5 fire behavior modeling program (Andrews, Bevins, and Seli 2004)

Table 4
BehavePlus Fire Behavior Modeling Results

Model Run	Fuel Model(s)	Flame Length (feet)	Fireline Intensity (Btu/ft/s)	Surface Rate of Spread (mph)
1	1 & SCAL 18	12.7 to 44.3	1,415 to 21,485	3.4 to 8.3
2	1 & SCAL 18	12.7 to 44.3	1,415 to 21,593	3.4 to 8.3
3	1 & 10	9.4 to 10.0	736 to 844	0.3 to 5.6
4	1 & 10	9.4 to 10.0	736 to 844	0.3 to 5.6

APPENDIX C

Fire History Exhibit



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8117

SOURCE: BING 2014, California Department of Forestry 2013

Appendix C

Fire History

ALISO CANYON FPP

Z:\Templates\Arcmap\New Protos\Generic\8x11 Portrait.mxd 1/15/2009

APPENDIX D

Prohibited Plant List

UNDESIRABLE PLANT LIST

The following species are highly flammable and should be avoided when planting within the first 50 feet adjacent to a structure. The plants listed below are more susceptible to burning, due to rough or peeling bark, production of large amounts of litter, vegetation that contains oils, resin, wax, or pitch, large amounts of dead material in the plant, or plantings with a high dead to live fuel ratio. Many of these species, if existing on the property and adequately maintained (pruning, thinning, irrigation, litter removal, and weeding), may remain as long as the potential for spreading a fire has been reduced or eliminated.

BOTANICAL NAME	COMMON NAME
Abies species	Fir Trees
Acacia species	Acacia (trees, shrubs, groundcovers)
*Adenostoma sparsifolium***	Red Shanks
*Adenostoma fasciculatum***	Chamise
Agonis juniperina	Juniper Myrtle
Araucaria species	Monkey Puzzle, Norfolk Island Pine
*Artemesia californica***	California Sagebrush
Bambusa species	Bamboo
Cedrus species	Cedar
Chamaecyparis species	False Cypress
Coprosma pumila	Prostrate Coprosma
Cryptomeria japonica	Japanese Cryptomeria
Cupressocyparis leylandii	Leylandii Cypress
*Cupressus forbesii***	Tecate Cypress
Cupressus glabra	Arizona Cypress
Cupressus sempervirens	Italian Cypress
Dodonea viscosa	Hopseed Bush
*Eriogonum fasciculatum***	Common Buckwheat
Eucalyptus species	Eucalyptus
*Heterotheca grandiflora***	Telegraph Plant
Juniperus species	Junipers
Larix species	Larch
Lonicera japonica	Japanese Honeysuckle
Miscanthus species	Eulalia Grass
*Muehlenbergia species***	Deer Grass
Palmae species	Palms
Picea species	Spruce Trees
*Pickeringia Montana***	Chaparral Pea
Pinus species	Pines
Podocarpus species	Fern Pine
Pseudotsuga menziesii	Douglas Fir
Rosmarinus species	Rosemary
*Salvia mellifera***	Black Sage
Taxodium species	Cypress
Taxus species	Yew
Thuja species	Arborvitae
Tsuga species	Hemlock
*Urtica urens***	Burning Nettle

** San Diego County native species

References: Gordon, H. White, T.C. 1994. Ecological Guide to Southern California Chaparral Plant Series. Cleveland National Forest.

Willis, E. 1997. San Diego County Fire Chief's Association. Wildland/Urban Interface Development Standards

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www.ucfpl.ucop.edu. 2004. University of California, Berkeley, Forest Products Laboratory, College of Natural Resources. Defensible Space Landscaping in the Urban/Wildland Interface. A Compilation of Fire Performance Ratings of Residential Landscape Plants.

County of Los Angeles Fire Department. 1998. Fuel Modification Plan Guidelines. Appendix I, Undesirable Plant List, and Appendix II, Undesirable Plant List.

APPENDIX DD

Rancho Santa Fe Fire Protection District Fire Service Availability Form

County of San Diego, Planning & Development Services
PROJECT FACILITY AVAILABILITY - FIRE
ZONING DIVISION

Please type or use pen

Zephyr Partners- RE LLC — 858 461-5109
Owner's Name — Phone

700 2nd Street
Owner's Mailing Address — Street

Encinitas, CA 92024
City — State — Zip

ORG_____
ACCT_____
ACT_____
TASK_____
DATE_____ AMT $_____

F

DISTRICT CASHIER'S USE ONLY

SECTION 1. PROJECT DESCRIPTION — **TO BE COMPLETED BY APPLICANT**

A. ☒ Major Subdivision (TM) ☐ Specific Plan or Specific Plan Amendment
☐ Minor Subdivision (TPM) ☐ Certificate of Compliance:_____
☐ Boundary Adjustment
☐ Rezone (Reclassification) from_____to_____zone.
☐ Major Use Permit (MUP), purpose:_____
☐ Time Extension...Case No._____
☐ Expired Map...Case No._____
☒ Other Road Vacation of portion of SA 680

B. ☒ Residential ..... Total number of dwelling units 8
☐ Commercial ..... Gross floor area_____
☐ Industrial ..... Gross floor area_____
☐ Other ..... Gross floor area_____

C. Total Project acreage 30.2 Total lots 8 Smallest proposed lot 2 acres

Assessor's Parcel Number(s)
(Add extra if necessary)

265-270-84	

Thomas Guide. Page 1148 Grid G-6

18531 Aliso Canyon Road
Project address — Street

San Dieguito, 92067
Community Planning Area/Subregion — Zip

OWNER/APPLICANT AGREES TO COMPLETE ALL CONDITIONS REQUIRED BY THE DISTRICT.

Applicant's Signature: [signature] Date: June 10, 2014

Address: 700 2nd Street, Encinitas, CA 92024 Phone: 858 614-5109

(On completion of above, present to the district that provides fire protection to complete Section 2 and 3 below.)

SECTION 2: FACILITY AVAILABILITY — **TO BE COMPLETED BY DISTRICT**

District Name: Rancho Santa Fe Fire Protection District

Indicate the location and distance of the primary fire station that will serve the proposed project:
RSF #4 18040 Calle Ambiente Rancho Santa Fe, CA 92067

A. ☒ Project is in the District and eligible for service.
☐ Project is not in the District but is within its Sphere of Influence boundary, owner must apply for annexation.
☐ Project is not in the District and not within its Sphere of Influence boundary.
☐ Project is not located entirely within the District and a potential boundary issue exists with the _____ District.

B. ☒ Based on the capacity and capability of the District's existing and planned facilities, fire protection facilities are currently adequate or will be adequate to serve the proposed project. The expected emergency travel time to the proposed project is <4 minutes.
☐ Fire protection facilities are not expected to be adequate to serve the proposed development within the next five years.

C. ☒ District conditions are attached. Number of sheets attached: 1.0
☐ District will submit conditions at a later date.

SECTION 3. FUELBREAK REQUIREMENTS

Note: The fuelbreak requirements prescribed by the fire district for the proposed project do not authorize any clearing prior to project approval by Planning & Development Services.

☒ Within the proposed project 100 feet of clearing will be required around all structures.
☐ The proposed project is located in a hazardous wildland fire area, and additional fuelbreak requirements may apply. Environmental mitigation requirements should be coordinated with the fire district to ensure that these requirements will not pose fire hazards.

This Project Facility Availability Form is valid until final discretionary action is taken pursuant to the application for the proposed project or until it is withdrawn, unless a shorter expiration date is otherwise noted.

[signature] — Renee Hill, Deputy Fire Marshal — 858-756-6007 — 6-24-14
Authorized Signature — *Print Name and Title* — *Phone* — *Date*

On completion of Section 2 and 3 by the District, applicant is to submit this form with application to:
Planning & Development Services – Zoning Counter, 5510 Overland Ave, Suite 110, San Diego, CA 92123

Rancho Santa Fe Fire Protection District

P.O. Box 410 • 18027 Calle Ambiente • Rancho Santa Fe • California 92067-0410
Tel. (858) 756-5971 • Fax (858) 756-4799

Board of Directors
James Ashcraft, President
Nancy C. Hillgren
Randall Malin
Tucker Stine
John C. Tanner

Fire Chief
Tony J. Michel

June 24, 2014

County of San Diego
Planning and Development Services
5510 Overland Ave.
San Diego, CA. 92123

Re: Project Facility Availably Form-Proposed TM on Aliso Canyon Rd. APN: 265-270-84
This letter expires in two years from the date above.

To whom it may concern;

The Rancho Santa Fe Fire Protection District has reviewed the above mentioned project and the pre-application mitigation measures submitted by Dudek dated 3/3/2014. This parcel lies within an area that has been determined to be a Very High Fire Hazard area. As such, the project will be required to comply with Rancho Santa Fe Fire Protection District Ordinance #2014-01 (Amended) and the mitigation described in the approved findings (enclosed). The Fire District has attached the mitigating findings as they will be additional standards required of this project.

1. MAP UPDATES: The above new development will require and necessitates updating of emergency response maps by virtue of new structures, hydrants, roadways or similar features, is required to provide map updates in a format compatible(GIS or CAD Files) with current department mapping services, and shall be charged a reasonable fee for updating all response maps.

2. FIRE PROTECTION PLAN: Will be required for this project in a full report format.

3. ACCESS/ROADWAYS: Per the RSFFPD Ordinance #2014-01, Fire Apparatus Access Roads Specifications, the roadway(s) within this project shall conform to this section. The roadway serving this project shall have a minimum improved paved width of 30 feet which supports 75,000 lb. Maximum grade is 20 %. Any other roadway features, such as cul-de-sacs, turn-outs, gates, etc. must meet the design criteria of the Fire District. All fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches. "No Parking signs" required on <u>one side</u> of the road on street "A" and Aliso Canyon Rd. Fire lanes may be required. The first layment of asphalt must be in place and serviceable prior to the delivery of combustible construction materials to the site.

4. FIRE APPARATUS ACCESS ROADS & HOSE PULL: Including private residential driveways shall be required for every building hereafter constructed when any portion of an exterior wall of the first story is located more than 150 feet from the closest point of fire department vehicle access.

5. HYDRANTS: Fire hydrants, together with an adequate water supply, must be installed at locations acceptable to the Fire District, and be within 350' to all parts of a building. The applicant is only showing one fire hydrant. Please revise to show existing and proposed hydrants. The required fire flow

for this project is 1,851 gallons per minute at 140-psi residual pressure. Specific hydrant location to be determined with a separate submittal. Fire Hydrants shall be in place and serviceable prior to the delivery of combustible construction materials to the site.

6. AUTOMATIC FIRE SPRINKLERS: Shall be installed in all occupancies.

7. LANDSCAPE PLANS: Shall be submitted to the Fire District. Submittal shall comply with criteria identified in Ordinance #2014-01. 100' fuel modification zones shall be required from all structures in areas that are located near or next to open space areas. Roadways require a 20' fuel modification zone on each side of the roadway.

8. SETBACKS: Structures shall have a setback from top of slope of 15' for single story elements, and 30' for two-story elements. Structures shall also have a setback of 50' from property lines and open space easements.

9. Use of building materials shall comply with enhanced construction and Ordinance #2014-01 and/or the approved mitigation findings along with the approved Fire Protection Plan (whichever is more restrictive).

Questions or concerns regarding the above comments should be directed to me. Thank you.
Please contact me at (858)756-6007 if you have any questions.

Thank you,

Renee Hill

Renee Hill
Deputy Fire Marshal
Rancho Santa Fe Fire Protection District

APPENDIX E

Dudek Memorandum Dated March 3, 2014

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

MEMORANDUM

For Review By:	San Diego County Fire Authority and Rancho Santa Fe Fire Protection District
Prepared By:	Clifford F. Hunter; Michael Huff, Dudek
Prepared For:	Mr. Jim McMenamin, Zephyr Partners, Real Estate Investments + Development, 11750 Sorrento Valley Road, Suite 130, San Diego, California 92121
Subject:	Request for Modification (Section 104.8) of the 2011 Consolidated Fire Code, Regarding Section 503.1.3, Dead-End Roads
Date:	March 3, 2014
Attachment(s):	1. Aliso Canyon Project Site Map 2. Water Pressure Test Results 3. Fire Season 2013 Public Notice 4. Site Implementation Agreements Ordinance 5. Site Map Showing Properties to be Developed & Biological Open Space Easement Vegetation Map

PROJECT DESCRIPTION

The project site is approximately 31 acres and the project proposes a 7-lot subdivision with approximately 2-acre lot sizes. The project is located off Aliso Canyon Road and Pacifica Ranch Drive within the Rancho Santa Fe Fire Protection District. The project is an infill on an existing street. The entire roadway from the proposed project to the nearest "compliance point" is currently and will continue to provide fuel modification. There is no extension proposed to the length of the exiting Aliso Canyon Road and no dead-end roads are proposed within the proposed project (Attachment 1). The Aliso Canyon Road width ranges from approximately 24 to 31 feet wide and is paved with an all-weather road surface to El Camino Del Norte. The existing road serves approximately 450 parcels. The proposed project would result in a minor increase in traffic of approximately .02% and slightly increase the density in the area by approximately 1.5%.

Additional research has determined that there is only three remaining properties that could be developed. Those three properties are not likely to be developed because there appears to be biological vegetation concerns with Coastal Sage Scrub. (Attachment 5)

RANCHO SANTA FIRE PROTECTION DISTRICT AND PREVENTION BUREAU

Rancho Santa Fe Fire Protection District is one of the most progressive fire districts in San Diego County. The following is a summary of services they provide.

a. Formed in 1946, the Rancho Santa Fe Fire Protection District provides services to a residential area of approximately 38 square miles, located between Interstate highways 5 and 15 north of San Diego's City limits.

b. The district operates from four fire stations. The fire stations operate 24 hours/7 days a week. The district has an ISO rating of four and nine in the outlying areas and provides structural and wildland fire protection. In addition, it operates a basic life support and advanced life support ambulance and rescue service. It operates a full-time Fire Prevention Bureau and community education. The advanced life support ambulance transport services are provided by County Service Area 17. The district has automatic and mutual aid agreements for any type of emergency with all the fire agencies within the County of San Diego, including Cal Fire.

c. Fire Prevention Bureau – Staffing (5 members full time and 2 members part time)

RANCHO SANTA FIRE PREVENTION BUREAU

The Fire Prevention Bureau consists of the following positions that ensure on going fire safety requirements are properly implemented in the Fire District:

a. Deputy Fire Marshal

b. Fire Prevention Specialist/Urban Forester

c. Fire Prevention Specialist

d. Staff Assistant

e. Annual Weed Abatement Inspector (part-time)

f. Intern position hired annually to inspect sheltered place communities for fire safety and code compliance (part-time)

g. Public Education Specialist

The travel time to the proposed project is 6.75 minutes from fire station number four and meets the general plan requirements for the maximum allowable travel time, which is 10 minutes.

The following recommendations address findings and mitigation for secondary road access for Section 503.1.3 (Consolidated County Fire Code) dead-end roads. These findings will meet and exceed the general plan goals and policies.

FINDINGS AND MITIGATION CONCLUSION

We have confidence that the findings and mitigation listed below would allow the fire code official the authority to grant the modification because the strict letter of this code, Section 503.1.3, Dead-End Roads, is impracticable and the findings and modifications we are recommending are in compliance with the intent and purpose of this code. Furthermore, such modification does not lessen health, life, and fire safety requirements.

SUMMARY OF FINDINGS AND MITIGATION FOR THIS PROJECT

Building and Site Design – items that are bold are more restrictive than current codes

1. The structures will be hardened with ignition-resistant materials and would be located where risk from wildland fires is minimized.
    a. **Dual Pane windows with both panes tempered.**
2. A full fire protection plan (FPP) will be completed for this project. Both Rancho Santa Fe Fire Protection District and the County would review and approve the FPP.
    a. 2011 Consolidated Fire Code Section 4903.1 Fire Protection Plan.
3. **The new roadway (name to be determined) would be 30 feet wide** with parking allowed on one side (24-foot unobstructed travel lanes) and would be looped back to Aliso Canyon Road, approximately 1,325 feet from Pacific Ranch Drive. The Private Road Standard is 24 feet wide. **This proposal exceeds the minimum standard and allows traffic flow to move more rapidly.**
    a. San Diego County Private Road Standard, Section 3.1 Design Standards.
4. **No gates or speed bumps or humps would be allowed in this project. This would allow traffic flow (ingress and/or egress) to move more rapidly in the case of emergency.**
    a. 2011 Consolidated Fire Code Section 503.6 Security Gates – Exceeds code requirements by not allowing them, will not bring to question the interface with exiting the project.

5. **Off-site additional mitigation would be the addition of "No Parking" signs and "Speed Limit" signs along Aliso Canyon Road to the proposed new looped road at Aliso Canyon Road. Also, the project would provide "Exit Directional Route" signs along Aliso Canyon Road. The signs would help stop parking on Aliso Canyon Road and help avoid confusion during an evacuation for both residents and non-residents, thus aiding fire department ingress and resident egress.**

6. **Additional fire hydrants would be placed every 350 feet along the roadway occurring on the project site.** Fire Code requirement is 500 feet to the structure. Hydrant tests in the area indicate 1,800 gallons per minute at 140 residual psi (Attachment 2). The additional fire hydrants assist fire district operations by reducing operational time to extinguish any fires.

   a. 2011 Consolidated Fire Code Section 507.5.1.1.1 Hydrant spacing - Exceeds Code Requirements of 500 feet.

   b. 2011 Consolidated Fire Code Section 507.3 **Fire Flow** - Taken on January 6, 2009, at Via De Las Flores, 27-inch main, had a static pressure of 179 psi and a residual pressure of 177 psi, with a 2.5-inch opening residual pressure of 140 psi, flowing 1,851 gallons per minute (gpm), done by Olivenhain Municipal Water District (OMWD), **exceeds code requirements of 2,500 gpm for new subdivisions in hazardous fire areas. Fire flow with 20 psi equals 19,660 gpm maximum fire flow currently.**

7. **A formal landscaping plan would be required for the project and its seven new parcels. Landscaping would be maintained on an ongoing basis**. Review would be by Rancho Santa Fe Fire Protection District's Fire Prevention Specialist/Urban Forester. This would assure that the use of highly flammable species is prohibited and that appropriate plant densities would be maintained. This would also reduce the impact of landscaping hanging into the roadways by reviewing size and location of trees and maintain 13-foot, 6-inch vertical clearance for fire apparatus.

   a. 2011 Consolidated Fire Code Section 4907.4, Landscape Plans – Rancho Santa Fe has staff to enforce this section of the Fire Code. More restrictive than the current code requirements.

   b. Rancho Santa Fe has staff to enforce this section of the Fire Code and currently does so.

8. **An annual inspection of the project would be done by Rancho Santa Fe Fire Protection District to maintain project landscaping in a wildfire-safe condition.**

9. Annual weed abatement notices will be mailed to all property owners in the Fire District (Attachment 3).
10. **There would be a 1- to 3-foot landscape-free area adjacent to stucco building structures' foundations. This would prevent flame impingement under the stucco along the weep screed and help prevent ember penetration into the structure stucco walls.**
    a. 2011 Consolidated Fire Code Section 4907.4, Landscape Plans – Rancho Santa Fe has staff to enforce this section of the Fire Code. More restrictive than the current code requirements.
11. **General fire setbacks of all structures would be 50 feet from property lines. The current code is 30 feet from property lines. The current code could allow other small structures to be closer to property lines based upon zoning and building codes.**
12. **All ventilation for the structures for the development would require ember-resistant vents in addition to 1/8 screening. This exceeds current Building Code requirements.**
    a. San Diego County Building Code Section 12, more restrictive than the current code requirements.
13. **All trash enclosures would be located at least 10 feet from any structures. Any combustible attachments to the structures (i.e., fences, gates, patio covers, and awnings) shall be located a minimum of 5 feet away from the structure**. Trash enclosures are not addressed in the Building Code.
    a. Trash enclosures are not addressed in the Building Code. More restrictive than the current code requirements.
14. **A Fire, Disaster, and Emergency Preparedness Working Guide shall be developed for the project covering the following subjects:**
    a. Preparing your home – landscaping and home.
    b. Preparing your communications – 911, contact information, telephone usage, email, radio stations, and useful links using the internet.
    c. Preparing yourself and family – emergency routes out.
    d. Preparing for imminent evacuation.
    e. Preparing your pets and animals.
    f. Maps showing exit routes.

g. Main evacuation routes and public safe zones.

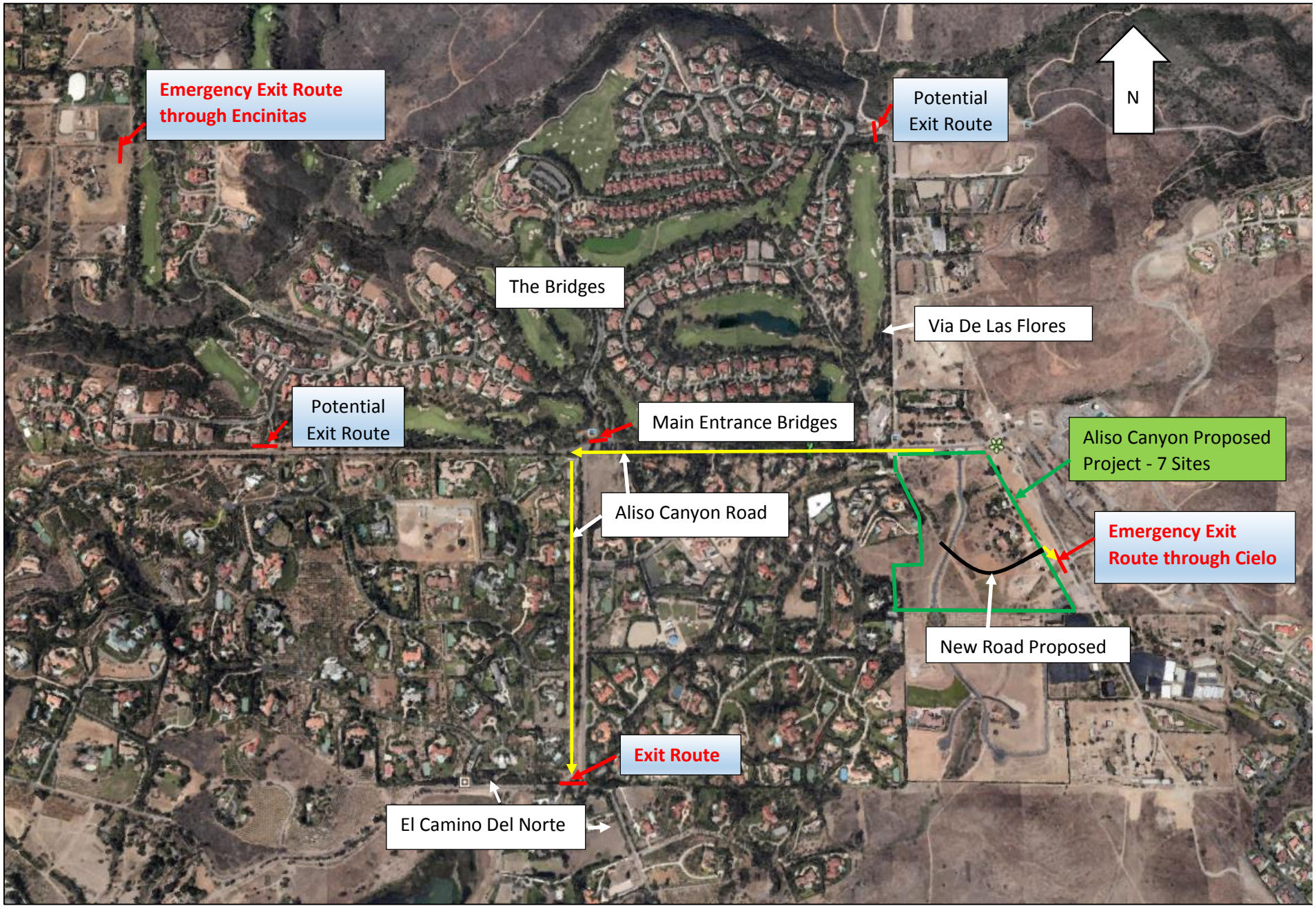
15. If adopted, the **developer agrees to implement San Diego County's (pending) "Site Implementation Agreement"** that would ensure the implementation of the above conditions associated with this project (Attachment 4).

16. Rancho Santa Fe Fire Protection District has a very active and current website covering Ordinances and Standards. The following is the link to the website: http://www.rsf-fire.org/ordinances/ordinances.html.

ATTACHMENT 1

Aliso Canyon Project Site Map

Site Map Aliso Canyon Project – MPA13-076 – Zephyr Partners-RE LLC (prepared by Cliff Hunter 1-14-2014) not to scale



ATTACHMENT 2

Water Pressure

RBF CONSULTING

PLANNING ■ DESIGN ■ CONSTRUCTION
800.479.3808 • www.RBF.com

Scan PC 3604

JOB 55-100546 - Brutten
SHEET NO 1 OF #2
CALCULATED BY DW DATE
CHECKED BY DATE
SCALE Fire lateral - velocity

Ex 27" Water main - Proposed Fire Lateral

Hazen - Williams Equation

$$v = 0.408709 \frac{Q}{d^2}$$

Q = 1850 gpm (from flowtest at ex. hydrant off ex 27")

if d = 6" ⇒ v = 21.0 fps

if d = 8" ⇒ v = 11.8 fps ⟵ 8" line was chosen

if d = 10" ⇒ v = 9.0 fps

EX. Hydrant off 27"

[redacted]

Fire Flow Test Results

[redacted]

Flow Test Requested By: G W Scott Construction

Project Name: Via De Las Flores

CITY: Rancho Santa Fe County: San Diego

OMWD Personel Conducting Test: Don Hussey Martin Amador

Date: 1/6/09 Time: 1030 am

Address: Via De Las Flores

Pressure Zone: N/A

Potential Impact To Zone: N/A

Reservoirs Involved: Peay Reservoir

P.R.Stations Involved: N/A

Static Pressure (prior to flow test)	179	P.S.I.
Residual Pressure (during flow test)	177	P.S.I.
Pitot Residual Pressure, 2 1/2 inch port	140	P.S.I.
Calculated Flow	1851	G.P.M.

Comments

Test Results Reviewed By: Eric F. Phillips

ATTACHMENT 3

Fire Season 2013 Public Notice

Board of Directors
James Ashcraft, President
Thomas Hickerson
Nancy Hillgren
Randall Malin
John C. Tanner

Fire Chief
Tony J. Michel

Fire Season 2013
PUBLIC NOTICE

"Prepare Your Property Before a Wildfire"

Dear Property Owner,

Are you ready for a wildfire! In the past years, we have witnessed how devastating a wildfire can be. We know all too well that a wildfire can happen any time of the year. The Rancho Santa Fe Fire Protection District is reminding property owners of local hazard abatement requirements for the protection of lives and property. **Prevention is key. Making the appropriate preparations today could help save lives and protect property from a wildfire tomorrow!**

You are responsible for reducing the fire risk around your home by adhering to the following requirements:

- **DEFENSIBLE SPACE AROUND STRUCTURES:** Create and maintain 100 feet of defensible space or fuel modification zone around all structures by modifying all flammable vegetation as described on the reverse side. Properties must maintain 100 feet of defensible space from neighboring structures.
- **ROADWAY & DRIVEWAY REQUIREMENTS:** Provide a vertical clearance of 13 feet 6 inches along all roadways, driveways, and easements. *This also pertains to low shrubs and bushes which encroach into the roadway.* Also, provide 30 feet of fuel modification along both sides of all roadways and driveways.
- **VEGETATION:** All properties, occupied or vacant are required to be free of dead/dying trees and dead brush. All dead or cured weeds/grasses should not exceed 6 inches in height.
- **ADDRESS REQUIREMENTS:** Post your ***county assigned*** address so that it is visible from the street and from both directions of approach. Firefighters will not be able to locate you by your lot number.
- **See reverse side for additional wildfire safety tips.**

THIS IS NOT AN OFFICIAL NOTICE TO ABATE HAZARDS. ***This is a courtesy letter to inform and educate property owners of Fire Districts' requirements as they relate to vegetation management. In the next few months, a weed abatement inspector will be traveling the entire district to view possible fire hazards in association with vegetation management/hazard removal.***

To discuss Fire District requirements in detail, or to make an on-site appointment,
Please call (858) 756-5971.

Please visit www.rsf-fire.org to view the Fire District Standards and Ordinances in their entirety.

MAKING YOUR HOME WILDFIRE READY IN 2013

Preventing vegetation fires is a year-round responsibility of all Fire District property owners. It's the "little things" that will endanger your home, such as an ember landing on dried and cured grasses. Spending a morning searching out and getting rid of those flammable "little things" outside can make your house much safer. Use the following guidelines to survey your property and make improvements before the next wildfire strikes. Rancho Santa Fe Fire Protection District vegetation management requirements can be found in their entirety in Ordinance 2004-002 and 2011-01. These documents are available to view at **www.rsf-fire.org.**

- ❑ **Create 100 feet of DEFENSIBLE SPACE ZONE** surrounding your structures. Get rid of dry grass, brush, and other flammable materials around your home. Replace with ***well-maintained and watered***, drought-tolerant, fire-resistive plants within the first 50 feet of the structure. Suggested landscaping plants are available on the District's website. The next 50 feet of vegetation should be thinned out 50% and all dead plant material should be removed.

- ❑ **All dead, dying, or diseased trees and shrubs must be removed!** *Unfortunately, some of the vegetation, such as the Eucalyptus, California pepper, Oleanders, and certain Acacia species, have gone from being decorative to becoming a potential fire hazard. This past year, the Fire District has seen an increase in the amount of tree and shrub mortality brought on by prolonged drought, insect infestation, disease, and lack of maintenance.* **Remove dead and diseased vegetation within a 100 feet from your home to reduce the threat!**

- ❑ **Keep your rain gutters and roof clean of all combustible debris,** such as leaves and pine needles.

- ❑ **Tree branches must be trimmed back** at least 10-feet from rooftops and fireplace chimneys.

- ❑ **Remove dead palm fronds** on palm trees within 100 feet from a structure or 30 feet from a roadway or driveway.

- ❑ Dispose of yard clippings, plant waste, trash, debris and other combustible materials in an appropriate manner. **NO ILLEGAL DUMPING.** This also pertains to dumping in canyons and/or open space areas.

- ❑ **Propane tanks** need 10 feet clearance from combustible materials and vegetation.

- ❑ **Move woodpiles and trash cans away from your home.** Firewood must be neatly stacked and have a minimum of 30-feet of clearance from a structure. Trash enclosures or trash can storage should be 10 feet away from a structure. Remember to keep the lid on the trash cans.

- ❑ **Combustible mulch or wood chips** shall not be closer than 12 inches to any structure so that fire cannot enter into the exterior wall of the structure.

Please contact the Fire District if you have any questions
(858) 756-5971

ATTACHMENT 4

Site Implementation Agreements Ordinance

ORDINANCE NO._____ (N.S.) **DRAFT**

AN ORDINANCE ENACTING CHAPTER 8 OF DIVISION 6 OF TITLE 8 OF THE SAN DIEGO COUNTY CODE RELATING TO SITE IMPLEMENTATION AGREEMENTS

The Board of Supervisors of the County of San Diego ordains as follows:

Section 1. Chapter 8 (commencing with Section 86.801) is added to Division 6 of Title 8 of the San Diego County Code, to read as follows:

CHAPTER 8. SITE IMPLEMENTATION AGREEMENTS

SEC. 86.801. PURPOSE.

The purpose of these regulations is to establish a process for proposed development that because of its location, size, or some other characteristic, may be conditioned to ensure that the development does not adversely affect applicable land use plans and that environmental regulations are met. A Site Implementation Agreement, with the written consent of the property owner, would ensure the implementation of conditions associated with development projects including but not limited to subdivisions, mitigation that has been adopted for impacts identified under the California Environmental Quality Act ("CEQA"; Pub. Res. Code Section 21000 et seq.), on-going project conditions, and other applicable requirements which would best be satisfied after a subdivision map has been recorded or any other land Development Project permit or approval has been granted.

SEC. 86.802. DEFINITIONS.

As used in this chapter, the following terms shall have the following meanings:

(a) "CEQA document" means a notice of exemption, negative declaration, mitigated negative declaration, environmental impact report, or review of a previously approved or certified CEQA document pursuant to CEQA or the State CEQA Guidelines.

(b) "Decision maker" means the Director of Planning & Development Services, the Planning Commission, and the Board of Supervisors, whichever has jurisdiction over an application listed in Section 86.802(e).

(c) "Director" means the Director of Planning & Development Services.

(d) "Site Implementation Agreement" shall mean an agreement entered into between the property owner(s) and the County pursuant to this chapter which

allows implementation of a development project on the condition that the owner of the land or applicant on which the development project is proposed performs one or more measures identified in the Site Implementation Agreement as necessary to satisfy on-going or other conditions of the project, implement adopted mitigation for potential environmental impacts of the project or satisfy post subdivision map recordation requirements.

(e) "Development Project" shall mean a project to develop land in a way which requires any of the following permits or approvals:

Boundary Adjustment
Certificate of Compliance
General Plan Amendment
Grading Permit
Habitat Loss Permit
Tentative Map
Tentative Parcel Map
Vacation of Public Service Easement
Zoning Reclassification

(f) "On-going condition" means a condition of a development project which runs in perpetuity with the entitled land subject to the cancellation and release provisions of section 86.813.

SEC. 86.803. REQUIREMENTS.

No person shall develop, construct, install, occupy, use, maintain, carry out or otherwise implement all or any part of a Development Project for which a Site Implementation Agreement has been approved and recorded in accordance with this chapter, except in full compliance with all applicable requirements and the terms of the Site Implementation Agreement. This prohibition applies to the initial development of a project, as well as the on-going use or operation of a project. All persons who acquire ownership of land which is subject to a Site Implementation Agreement, who have actual or constructive notice of the contents of the Site Implementation Agreement, shall be subject to the terms and conditions thereof and shall fully comply with those terms and conditions.

SEC. 86.804. SITE IMPLEMENTATION AGREEMENT EXCEPTIONS

A Site Implementation Agreement shall not be used for the following purposes:

(a) To ensure the construction

of subdivision improvements required pursuant to the Subdivision Map Act (Gov. Code sec. 66410 et seq.) or the Subdivision Ordinance (sec. 81.101 et seq. of this code).

(b) To defer the grant of an easement, conveyance of real property, or purchase of mitigation credits, required for the mitigation of biological impacts beyond final subdivision map approval.

SEC. 86.805. APPLICABILITY.

Upon request of the applicant with written consent of the property owner, or property owner, the Director may use a Site Implementation Agreement, in addition to, another County permit or enforcement mechanism, to ensure the satisfaction of project conditions and ongoing mitigation measures. Prior to using a Site Implementation Agreement in lieu of another County permit or enforcement mechanism, the Director must find that enforcement and monitoring of the project's conditions and mitigation requirements are adequately ensured in the Site Implementation Agreement as it provides an equivalent or more effective means of enforcement. The determination of which conditions and mitigation measures, if any, are suitable for deferral or inclusion in a Site Implementation Agreement shall be within the sole discretion of the County.

SEC. 86.806. COUNTY PROJECTS.

This chapter shall not apply to any project for which the County is the applicant or landowner.

SEC. 86.807. FORM AND CONTENTS OF SITE IMPLEMENTATION AGREEMENTS.

A Site Implementation Agreement shall be in a form approved by the County Counsel and shall contain the following:

(a) A description of the Development Project;

(b) A legal description of the real property upon which the Development Project is proposed;

(c) A requirement that the land owner, or authorized agent on behalf of the land owner, or the applicant with written consent of the land owner, perform one or more of the specified conditions, adopted mitigation measures specified in the project's CEQA document, or other applicable requirements necessary for the development and implementation of the Development Project (which shall be listed in the Site Implementation Agreement), except that the Director may omit particular mitigation measures, conditions or other requirements if he or she finds that enforcement thereof is

adequately ensured via another mechanism, such as conditions of another County land use permit or approval, an easement, an agreement, an ordinance requirement, or other mechanism which provides an equivalent or more effective means of enforcement and/or monitoring;

(d) A statement that implementation of the Development Project is authorized only upon condition that the project conditions or mitigation measures specified in the Site Implementation Agreement are performed;

(e) A statement that the land owner(s) and each grantee, transferee and other successor in interest of the land owner(s) shall be bound by the terms of the Site Implementation Agreement and shall be responsible to perform those project conditions and mitigation measures required thereby and applicable to the Development Project for which the Site Implementation Agreement has been approved;

(f) A requirement that the land owners and each grantee, transferee and other successor in interest of the land owners disclose the terms of the Site Implementation Agreement in writing to any subsequent grantee, transferee or other successor in interest and to any trustee or beneficiary under deed of trust, mortgagee or other person who extends credit against the value of the land; and

(g) The signatures of all owners of the land described in the Site Implementation Agreement (whose signatures shall be acknowledged).

SEC. 86.808. PROCESS FOR APPROVAL OF SITE IMPLEMENTATION AGREEMENTS FOR PROJECTS OTHER THAN SUBDIVISIONS.

(a) Prior to presenting an application listed in Section 86.802(e), other than a Certificate of Compliance, Boundary Adjustment, Tentative Map or Tentative Parcel Map, to the Decision maker for approval, the Director shall determine whether there are any mitigation measures identified in the draft CEQA document or other applicable requirements necessary for the development and implementation of the Development Project for that application, for which the approval of the application does not provide an adequate enforcement mechanism through approval conditions or other means. With the written consent of the property owner, such mitigation measures may be included in a Site Implementation Agreement signed by the land owner(s) prior to presentation of the application to the Decision maker, unless the applicant contests the imposition of one or more mitigation measures. If the application is approved, the form of Site Implementation Agreement signed by the landowner(s) shall be immediately approved and recorded by the Director.

(b) If the applicant chooses to enter into a Site Implementation Agreement and contests the imposition of one or more conditions or mitigation measures, the application may be presented to the Decision maker without a signed Site Implementation Agreement. In that event, or in the event that in the process of the Decision maker's consideration of the application, any conditions or mitigation measures are added, modified or deleted, a form of Site Implementation Agreement shall be prepared following the approval of the application, which shall include applicable mitigation measures required by the Decision maker. Approval of the Section 86.802(e) application shall not become effective until the Site Implementation Agreement in conformance with Section 86.807 has been signed by the land owner(s).

(c) Upon approving the Site Implementation Agreement, the Director shall cause it to be filed with the San Diego County Recorder on all properties that are part of the Development Project. The applicant shall not initiate or carry out the project, and no building or other permits or approvals shall be issued in furtherance of the project, until the Site Implementation Agreement has been signed by the land owner(s) and the Director and recorded.

SEC. 86.809. PROCESS FOR APPROVAL OF SITE IMPLEMENTATION AGREEMENTS FOR BOUNDARY ADJUSTMENTS, CERTIFICATES OF COMPLIANCE, TENTATIVE MAPS AND TENTATIVE PARCEL MAPS.

(a) Prior to presenting an application for a Boundary Adjustment, Certificate of Compliance, Tentative Map or Tentative Parcel Map to the Decision maker for approval, the Director shall determine whether the draft CEQA document for that application states that one or more mitigation measures, or other applicable requirements necessary for implementation of the Development Project, are required (other than subdivision improvements referenced in Section 86.804 above) which cannot be completed prior to approval of the corresponding Boundary Adjustment, Certificate of Compliance, Final Map or Parcel Map, and shall identify those to the decision maker. The decision maker's approval of the application shall include a condition requiring that a Site Implementation Agreement be obtained prior to approval of a Boundary Adjustment, Final Certificate of Compliance, Final Map or Parcel Map, which shall include all mitigation measures included in the final CEQA document which the Decision maker determines cannot be completed prior to the Boundary Adjustment, Final Certificate of Compliance, Final Map or Parcel Map.

(b) Prior to the approval of the Boundary Adjustment, Final Certificate of Compliance, Final Map or Parcel Map, the applicant shall present to the Director the completed form of Site Implementation Agreement, which includes all mitigation measures or other applicable requirements required to be included under paragraph (a), complies with Section 86.807 above and is signed by the landowner(s). Immediately

upon approval of the Boundary Adjustment, Final Certificate of Compliance, Final Map or Parcel Map, the Director shall approve the Site Implementation Agreement and cause it to be filed with the San Diego County Recorder.

(c) Upon approving the Site Implementation Agreement, the Director shall cause it to be filed with the San Diego County Recorder on all properties that are part of the Development Project. The applicant shall not initiate or carry out the project, and no building or other permits or approvals shall be issued in furtherance of the project, until the Site Implementation Agreement has been signed by the land owner(s) and the Director and recorded.

SEC. 86.810. SITE IMPLEMENTATION AGREEMENTS TO BE BINDING ON SUCCESSORS IN INTEREST.

The recording of a Site Implementation Agreement shall impart constructive notice of the terms thereof. The rights and obligations specified in the Site Implementation Agreement shall apply to the land described therein and shall benefit and be binding upon all grantees, transferees and other successors of the owner with respect to that land.

SEC. 86.811. ENFORCEMENT REMEDIES.

(a) Failure to comply with any condition of a Site Implementation Agreement shall constitute a violation of this code.

(b) The County may specifically enforce the terms of a Site Implementation Agreement in a court of appropriate jurisdiction, and may obtain injunctive relief against any person failing to comply with any term of a Site Implementation Agreement of which such person has actual or constructive notice.

(c) As part of a civil action filed by the County to enforce provisions of this Code, a court may assess a maximum civil penalty of $2500 per violation for each day during which any violation of any provision of this Code is committed, continued, permitted or maintained by such person(s). As part of a civil action, a court may also enjoin a person from violating any provision of this Code and assess a maximum civil penalty of $6000 for each day any person intentionally violates the injunction.

(d) In addition to all other legal remedies, criminal or civil, which are available to the County to address any condition of a Site Implementation Agreement, the County may use the Administrative Remedies found at Division 8 of Title 1 of the County Code.

SEC. 86.812. MODIFICATION OF SITE IMPLEMENTATION AGREEMENTS.

(a) An owner of land subject to a Site Implementation Agreement, or the County for good cause shown, may file with the Director an application to modify the Agreement. The application shall specify the precise terms of the Site Implementation Agreement which the applicant desires to modify. The Director may also initiate the modification of a Site Implementation Agreement for good cause shown.

(b) The Director shall first determine whether the desired modification requires a revision or modification to any approval listed in subsection 86.802(e), and if it does, the Director shall return the application and advise the applicant that the application cannot be processed until the subsection 86.802(e) approval has been revised or modified.

(c) If the Director determines that no revision or modification to any approval listed in subsection 86.802(e) is required, he or she may approve the application, deny the application, or approve the application with further modification(s) as agreed to by the landowner, except that if the proposed modification affects other conditions and requirements of the approval listed in subsection 86.802(e), then the Decision maker who granted the approval shall have jurisdiction over the modification. If multiple Decision makers granted the approval listed in subsection 86.802(e), then the amendment to the Site Implementation Agreement shall be under the jurisdiction of the highest of those multiple Decision makers.

(d) A modified Site Implementation Agreement shall comply with the requirements of section 86.807. After its approval by the County, the Director shall cause the signed modified Site Implementation Agreement to be filed for record with the San Diego County Recorder on all properties that are part of the development project.

SEC. 86.813. CANCELLATION AND RELEASE OF SITE IMPLEMENTATION AGREEMENTS.

(a) An owner of land subject to a Site Implementation Agreement, or the County for good cause shown, may file with the Director an application to cancel the Agreement. The application shall be signed by all current owners of the land, and shall state that the owners understand that cancellation will terminate the rights under the Agreement and release the property owners from the obligations of the terms and conditions of the Agreement.

(b) The Director may approve the application for cancellation if he or she finds that there is no continuing need for the Site Implementation Agreement, for one or more of the following reasons:

(1) The Development Project for which it was required has been abandoned and will not be implemented;

(2) All required mitigation of environmental impacts and/or other applicable conditions or requirements has been completely performed and no ongoing mitigation is required; or

(3) Changes in circumstances have occurred which render the requirements for environmental mitigation or other applicable requirements unnecessary.

(c) Upon approving cancellation, the Director shall notify the applicant. The Director shall cause a notice to be filed with the San Diego County Recorder on all properties that are part of the Development Project, stating that the Site Implementation Agreement has been cancelled and the property owners are released from the terms and conditions thereof.

Section 2. This ordinance shall take effect and be in force thirty days after its passage, and before the expiration of fifteen days after its passage, a summary hereof shall be published once with the names of the members of this Board voting for and against it in the _____ a newspaper of general circulation published in the County of San Diego.

ATTACHMENT 5

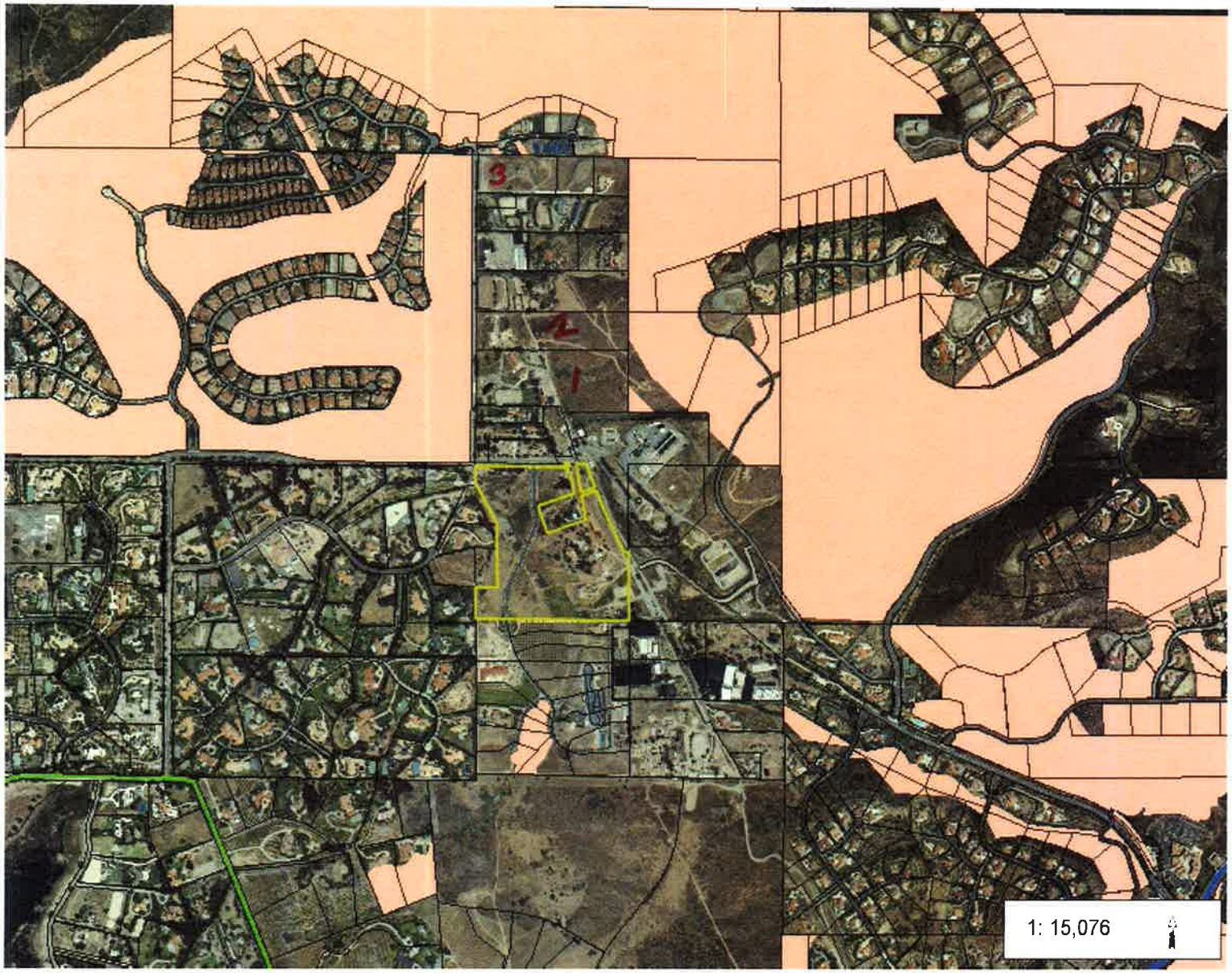
Site Map Showing properties to be developed

&

Biological Open Space Easement Vegetation Map

LUEG GIS

Land Use & Environment Group
Geographic Information Services



Legend

- Parcels
- Circulation Element (Adopted 2
  - Expressway/Freeway
  - Prime Arterial
  - Major Roads Series
  - Boulevard Series
  - Community Collector Series
  - Light Collector Series
  - Minor Collector Series
  - Local Public Roads
- Biological Open Space Easem

1 14.89 ac (2) ac min
2 10.12 ac (2) ac min
3 5.18 ac (2) ac min

Notes

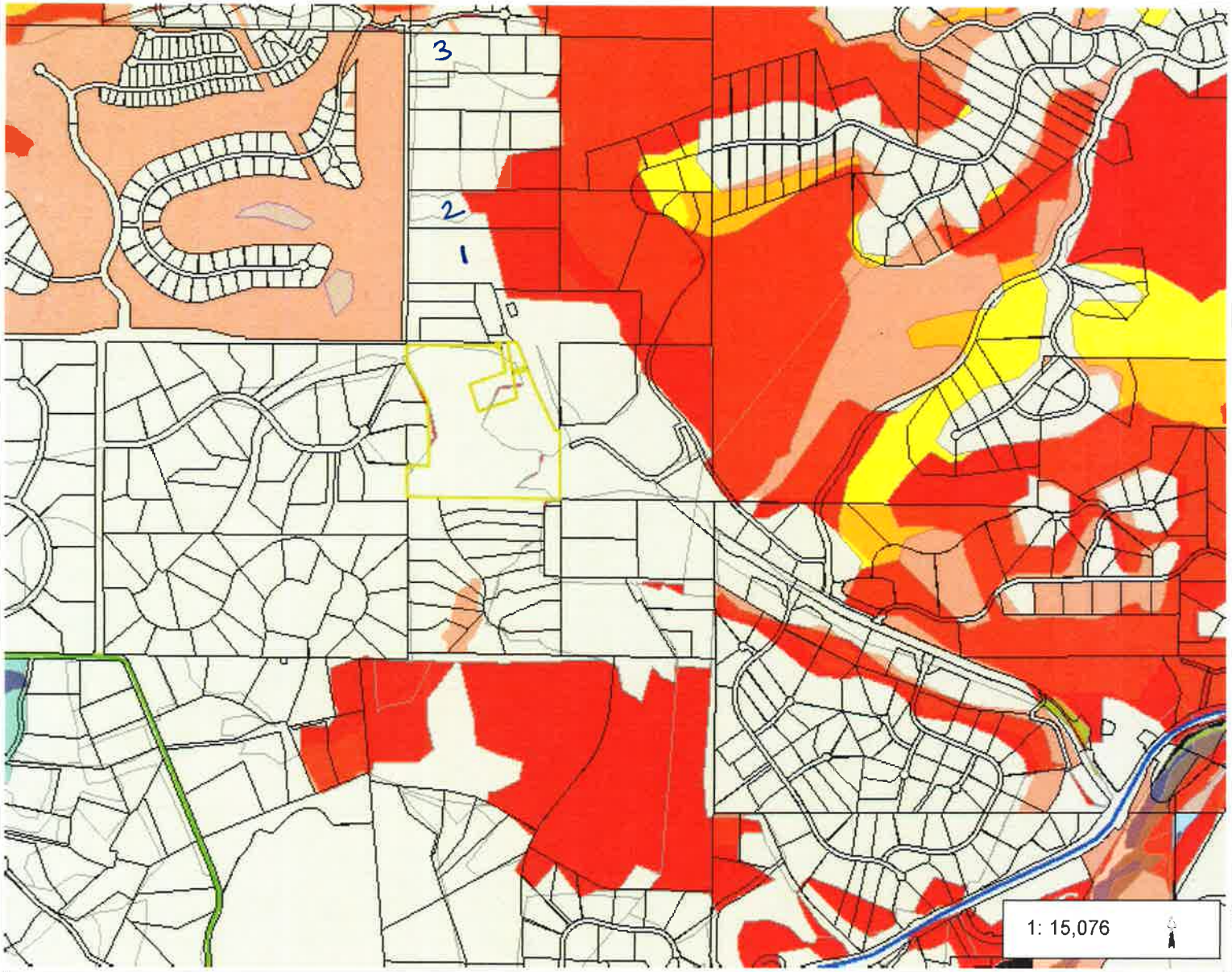
0.5 0 0.24 0.5 Miles

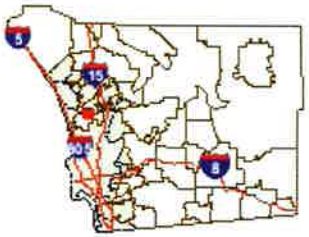
NAD_1983_StatePlane_California_VI_FIPS_0406_Feet
Planning and Development Services

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

LUEG GIS

Land Use & Environment Group
Geographic Information Services





Legend

- Parcels
- Circulation Element (Adopted 2
  - Expressway/Freeway
  - Prime Arterial
  - Major Roads Series
  - Boulevard Series
  - Community Collector Series
  - Light Collector Series
  - Minor Collector Series
  - Local Public Roads
- Biological Open Space Easem
- Vegetation
  - Southern Foredunes, Beach, Saltpa
  - Coastal Sage Scrub
  - Chaparral
  - Grassland
  - Riparian Scrub
  - Riparian Woodland
  - Riparian Forest
  - Pinyon Juniper Woodlands
  - Other Woodlands
  - Oak Forest
  - Meadow and Seep
  - Marsh
  - Coniferous Forest
  - Desert Dunes
  - Playas/Badlands/Mudhill Forbs
  - Desert Scrub

Notes

0.5 0 0.24 0.5 Miles

NAD_1983_StatePlane_California_VI_FIPS_0406_Feet
Planning and Development Services

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THIS MAP IS NOT TO BE USED FOR NAVIGATION

APPENDIX F

County of San Diego Letter Dated March 13, 2014

HERMAN REDDICK
PROGRAM MANAGER
(858) 974-5999
FAX (858) 467-9662

County of San Diego

Public Safety Group
San Diego County Fire Authority
5510 Overland Ave, Suite 250, San Diego, CA 92123-1239
www.sdcountyfire.org

SUSAN QUASARANO
PROGRAM COORDINATOR
(858) 974-5924
FAX (858) 467-9662

March 13, 2014

County of San Diego
Planning & Development Services
5510 Overland Ave., Suite 321
San Diego, CA 92123

Attn: Marisa Smith, Project Manager

Ref: **MPA 13-076 – Aliso Canyon 8-Lot Subdivision**
APN 265-270-84
Rancho Santa Fe Fire Protection District
Request for Modification

The project proposes to subdivide an approximately 31 acre parcel into 8 parcels in the community of Rancho Santa Fe. The project as currently designed exceeds the maximum allowable dead-end road length per section 503.1.3 of the County Consolidated Fire Code (CCFC), and the applicant is asking for a modification to the maximum allowable dead-end road length for this project. Section 104.8 of the CCFC allows the fire code official to grant modifications for individual cases, provided that the fire code official shall first find that special individual reason makes the strict letter of the code impracticable, the modification is in compliance with the intent and purpose of the code, and that such modification does not lessen health, life and fire safety requirements. Given the location of the project, road conditions, the relatively small increase in traffic, the unlikelihood of additional subdivisions to occur in the future that would increase traffic, and the mitigation measures being proposed in a memorandum from Dudek dated March 3, 2014, our department has no objection to the modification request upon approval by the Rancho Santa Fe Fire Protection District. We have contacted the Rancho Santa Fe Fire Protection District and they have indicated that their district would accept the modification request.

Please call or email me if you have any questions or need clarification – (858) 495-5434 or James.Pine@sdcounty.ca.gov.

Best Regards,

James Pine, Deputy Fire Marshal
San Diego County Fire Authority
Public Safety Group

Cc: Renee Hill, Deputy Fire Marshal, RSFFPD (via email)
Cc: Clifford F. Hunter, Dudek